

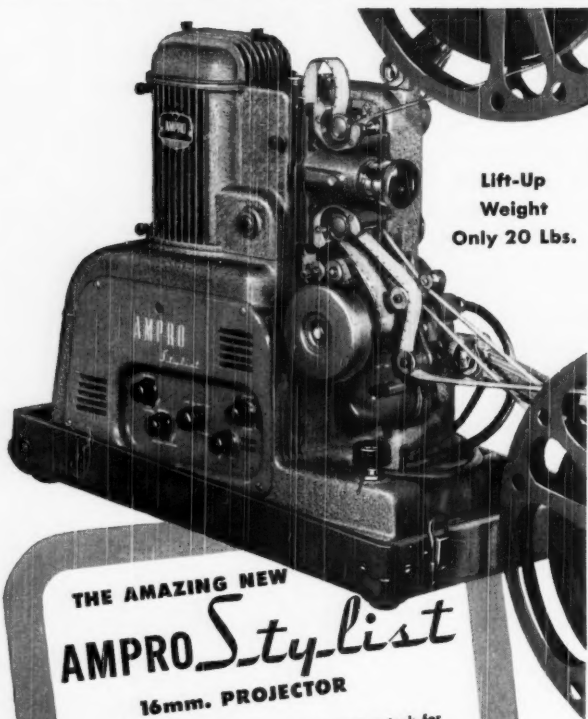
See & Hear

INTERNATIONAL JOURNAL OF AUDIO-VISUAL EDUCATION



VISUALIZING THE VOCATIONAL ARTS • MID-CENTURY REPORT II
TEACHER TRAINING SURVEY (PART ONE) ISSUE 8 • VOLUME 5 • 1950

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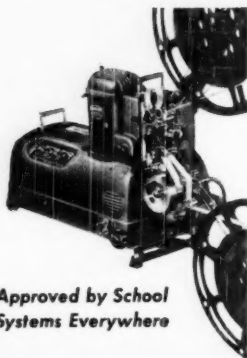
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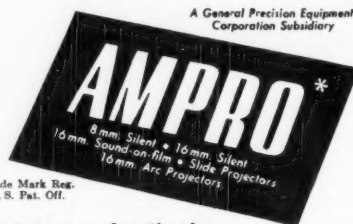
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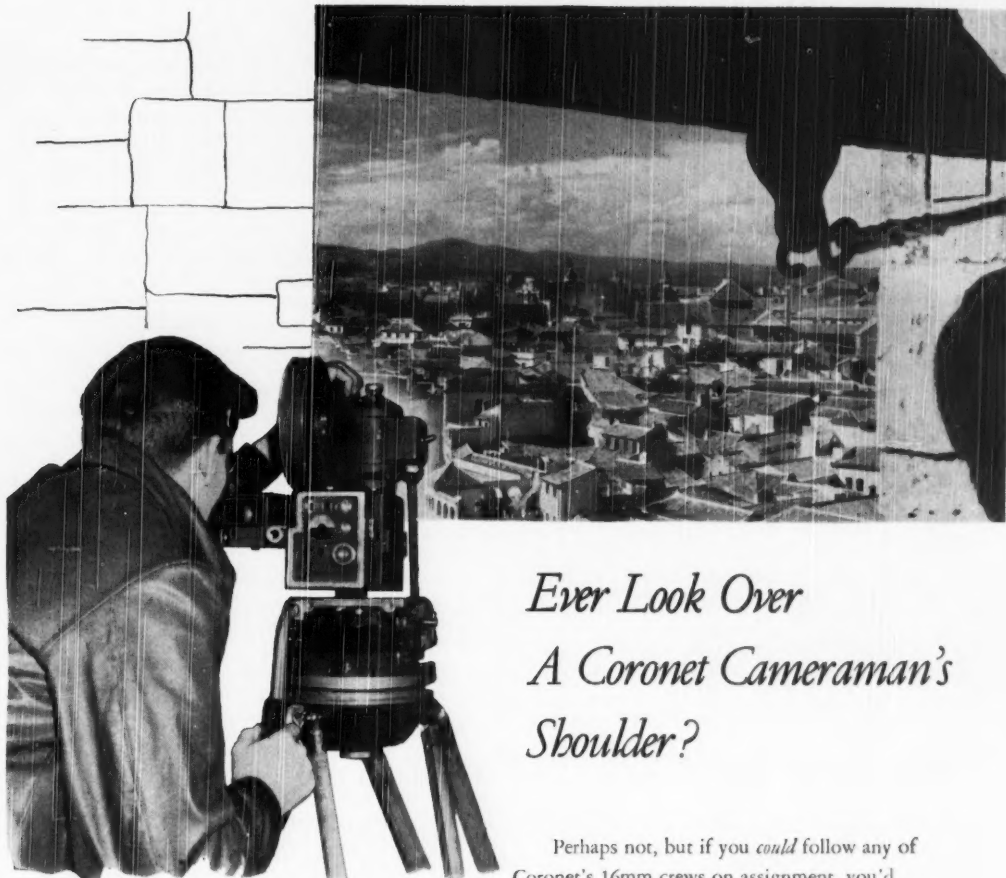
Important Editorial Features In See & Hear This Month

★ **THREE MAIN EVENTS** take place in our editorial pages this month. The first is the cover feature topic "Visualizing the Vocational Arts" which continues the new SEE & HEAR tradition of curriculum integration we began last fall and features four experienced hands in the field of vocational education as well as many material recommendations.

The second main event is the completion on five solid pages of text of our State Surveys on progress in audio-visual education. We are especially indebted to Georgia's audio-visual chief for his excellent report in this issue. Georgia *can* and *should* have at least equal status with other progressive areas in the New South and *the time is ripe for a coordinated effort in that direction*. Her leadership is both capable and enthusiastic. Witness the successful career of Atlanta's Film Council, the growth of audio-visual libraries, and the distinguished work of some of her pioneer leaders. We look forward to developing programs of statewide importance in both Georgia and perhaps—also in North Carolina.

Completing this trilogy of special features is Part One of a very useful survey of teacher training programs in colleges and universities. Here is where real progress in more classroom audio-visual utilization must begin—where teachers *learn to use* the materials—and *experience their values as they learn to teach*.

It will interest our subscribers to know that SEE & HEAR has provided more pages of exclusively educational content on audio-visual materials and techniques than any other professional journal in this field. Four times as many pages as several of the periodicals and a good percentage more than any other contemporary. We sincerely believe that the audio-visual field merits this exclusive *professional* attention. But we also believe that tens of thousands of classroom teachers and specializing department heads ought to be served as we have served them in this first experimental year of featured issues—health & welfare, sports, primary grades, social studies, science—and now—vocational education. —OHC



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Meanwhile, back in Coronet's own production studio—the only one of its kind in the nation—technicians completed three important new additions to our Guidance Series—*Let's Share With Others*, *Parties Are Fun*, and *Ways To Settle Disputes*. Remember—no other producer of educational films can match Coronet's record for producing superior, authentic teaching films.

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North Carolina Will Hold State Audio-Visual Conference in July

◆ A two-day conference on July 20-21 will be held at North Carolina College, Durham, North Carolina featuring audio-visual techniques, equipment instruction, and materials under the general theme "Towards Better Teaching." Consultants for the program are Charles F. Milner, associate director, The Communication Center, University of North Carolina, and Phillip Mannino, visual aids specialist, Pennsylvania State College. Members of the North Carolina College faculty will also participate.

Utah Audio-Visual Association Elects Officers for New Terms

◆ In a recent meeting at Brigham Young University, Provo, Utah, members of the newly-formed Utah Audio-Visual Association elected Andrew J. Jones as president. Ralph F. Hill is vice president and Golda Thornley, secretary of the Utah group. Officers of the Western States Audio-Visual Association were present at the meeting including Helen Rachford, president; Clarence Tyn-dall, vice-president, and secretary-

treasurer Paul Cox. Eugene Hill is publicity chairman of the Utah association.

New SVE Visual Kit Combination Brings Real Savings To Buyers

◆ For the first time in its 31-year history, The Society for Visual Education is making a special combination offer of a new visual kit that provides both an improved projector and \$50.00 worth of filmstrips or slides at the reduced cost of \$97.50 complete, reports W. H. Garvey, Jr., president of S. V. E. The offer is available only through S. V. E. audio-visual dealers from April 1 to July 1, 1950.

The new visual kit includes a 300-watt, improved projector plus \$50 worth of filmstrips or slides of the customer's own choice, which he can select from over 1,500 filmstrips, and more than 20,000 2" x 2" slides, listed in S. V. E. catalogues.

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Here is African life first hand, from the crude dangerous jungle down the river to civilization. Living conditions, work, travel, transportation and other habits of its people, most of whom are dependent upon the Nile and its tributaries, all are vividly and impressively told and shown by actual scenes and animated maps.

A Sequel Film, "Nile Valley and the People of the Lower River," will be released soon.

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Sight and Sound of the News

Audio-Visual Leaders Attend 2nd Annual Stephens College Conference

★ The second annual conference on "The Effective Utilization of Audio-Visual Materials in College Training", was held at Stephens College, Columbia, Mo., from April 26 to April 28. Audio-visual leaders and teachers from 32 colleges and universities agreed that the interchange of ideas resulting from the various panel groups and the comments of the leaders were stimulating and interesting.

One of the highlights of the conference was the address given by C. Scott Fletcher, president, Encyclopaedia Britannica Films, Inc. who spoke at the dinner meeting on April 26.

"The great need in education is to help teachers everywhere in their fight for better tools of communication with which to educate our future citizens," declared Mr. Fletcher, who

discussed "The Role of the Producer in Utilization of Visual Materials."

In speaking of the use of audio-visual materials in the college classroom Mr. Fletcher said:

"We need to fight the time lag which seems to be inevitable in accepting new ideas. We must reach out and convince those who have never been taught by this great tool and hence do not realize its importance."

Another program of intense interest was provided by the Roll Call Session on the first day. Here the most important developments on the various college campuses for 1949-50 were reported, and a discussion was held on the new and recent regional and national developments in the audio-visual field by conference guests.

The Thursday morning conference session was devoted to informing fac-

ulty members about the availability of audio-visual materials and services. Francis W. Noel, Chief, Division of Audio-Visual Education, State of California, presided at this discussion which included constructive suggestions on how to build a cataloging system of audio-visual materials for the college library. The problems centering about the development of an audio-visual research laboratory on college campuses were also examined.

An instructive panel on the effective use of audio-visual material was presented Thursday evening. The program was made up of material that was brought to the conference by participants. Jamison Handy, Jam Handy Organization, was the panel chairman.

Research findings in relation to audio-visual materials were reviewed on the final day of the conference. The problems on which research is needed and action-research programs that individual colleges can undertake were discussed. William Litterick, Director, Research Service, Stephens College, was panel chairman.

Finally an able summary of the conference, its activities, aims and plans for future developments was given by B. Lamar Johnson, Stephens College.

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Ellsworth Dent Addresses Arizona A-V Education Association Meeting

★ Keynote speaker at the two-day meeting of leading Southwestern educators attending the Arizona Audio-Visual Association Conference at Tempe recently was Ellsworth C. Dent, Director of Distribution for Coronet Instructional Films. Panel discussions and seminars also featured the gathering of city and county school executives in that area, echoing similar state group meetings in other parts of the U.S.

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Plans Shaping Up for National Audio-Visual Convention to Be Held in Chicago July 28-August 2

★ The all-industry National Audio-Visual Convention, jointly sponsored in 1950 by five national organizations in this field, will again be held in Chicago's Hotel Sherman, opening July 28 and closing August 2. Representatives of the sponsoring groups met in Chicago last month to complete plans for the event. The Educational Film Library Association was represented by Carolyn Guss, Indiana University, and Ford Lemler, University of Michigan; the Film Council of America by Glen Burch and Laurin Healy; the Midwest Forum on Audio-Visual Aids by E. C. Waggoner and Orlin Trapp; the National Audio-Visual Association by Paul Foght and Don White; and the Association of State Audio-Visual Directors by Syd Alkire. Here's your tentative program:

1. State audio-visual directors will meet Wednesday and Thursday, July 26 and 27.

2. Friday and Saturday, July 28-29, will be devoted to EFLA meetings, with group sessions during the day and general meetings and screenings in the evening.

3. Sunday, July 30, will feature meetings of the Film Council of America, concluding with a dinner on Sunday evening. At this dinner, a number of pioneers of the visual education field, men and women who have spent twenty years or more in the field, will be honored.

4. The NAVA Trade Show opens Sunday, July 30, at 1 p. m. with more than a hundred exhibits of equipment and materials on display. The show will continue four days, closing Wednesday, August 2. NAVA membership sessions will be held at 9 a.m. on Monday, Tuesday, and Wednesday.

5. The Midwest Forum will hold sessions on Monday afternoon and evening, July 31. The newly re-organized Department of Audio-Visual Instruction, NEA, has been invited to arrange a program during the period of the convention.

Further details on convention and trade show arrangements will be announced in the next issue.

* * *

Other Important Audio-Visual Meetings on the Calendar for June and July in Cleveland, Ohio

★ Cleveland's pioneering and now nationally-known June Film Festival will be held the third successive year on June 13. Sponsored by the Cleveland Film Council, this event not only attracts hundreds of local program leaders but has also drawn favorable publicity throughout the nation.

Six categories of films will be presented in special screening sessions during the one day festival. These include films on Mental Hygiene, Industrial Relations, Informational, Experimental, Travel, and Religious Films. The Industrial Relations area will include Free Enterprise, Safety, Sales Promotion, Public Relations, and Training Films.

"Oscars" are presented to films selected by popular vote of the audiences attending the various screenings. An evening dinner meeting on Tuesday, June 13 will conclude the event.

★ The Audio-Visual Workshop of the American Library Association will also be held in Cleveland on July

(CONTINUED ON THE FOLLOWING PAGE)

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(CONTINUED FROM THE PRECEDING PAGES)

15 and 16. Arthur Mayer, theatrical executive and an international consultant on factual films, will be the featured banquet speaker at the Hotel Hollenden, Saturday evening, July 15. John M. Cory, ALA Executive Secretary, will preside.

Panel programs promise interesting fare including a session on "Do You Know a Good Film When You See One?" on Saturday afternoon and Sunday sessions on Recordings, Radio and Television as well as a presentation of a policy statement on sponsored films.

Notes About Films and People Who Make Them:

★ That new and highly-interesting film reviewed in last month's "Science Visualized" issue of SEE & HEAR titled *Challenge-Science Against Cancer* is now being handled by International Film Bureau, Inc., 6 North Michigan Avenue, Chicago 2, as exclusive sales agent appointed by the Medical Film Institute. Prints are \$45 f.o.b. Chicago.

★ Filmfax Productions has moved to new and larger quarters at 10 East 43rd Street, New York 17, according to announcement by Henry Clay Gipson, president.

★ The first mental health film produced by the National Institutes of Health, Federal Security Agency, Public Health Service is *Preface to A Life*, a 28-minute sound film. It was formally released throughout the country during Mental Health Week April 23-29. Castle Films is handling print sales and preview print requests should be directed to them at 1445 Park Avenue, New York. We suggest that you mention SEE & HEAR. ●

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◆ More than 350 teachers and community workers are expected to enroll in seven workshops in intergroup relations being held this summer at leading American universities under cooperative relations with the National Conference of Christians and Jews. These workshops provide an intensive concentrated period of training in the techniques and skills needed by teachers to make an effective contribution to intergroup education. In most cases, fellowship aid will be made available through NCCJ regional offices to help the participants meet the cost of this professional training.

The universities included are Chicago, North Carolina, Rutgers, Texas, Southern California, Western Reserve, and San Francisco State College. Inquiries or requests for fellowship aid may be addressed to the nearest regional office of the NCCJ.

* * *

Capacity Audience Attends Preview of Marriage Films at Stephens

★ A capacity audience of civic leaders, faculty members and students from Stephens College and the University of Missouri, witnessed the Columbia preview of the four films made by the McGraw-Hill Text Film division in Columbia to supplement the textbook, "Marriage for Moderns" by Dr. Henry A. Bowman, head of the Home and Family Division at the college.

The preview, presented on Monday, March 20, in the Stephens College Assembly Hall, was highlighted by the fact that Dr. Bowman, author of the book, and most of the ninety-three people who comprise the cast of the four films, were present.

In addition to Dr. Bowman, brief talks were made on the occasion by Dr. Homer Price Rainey, president of Stephens College, by Dr. B. Lamar Johnson, Dean of Instruction at Stephens, and by Dr. Robert de Kieffer, head of the rapidly expanding audio-visual program at the college.

The motion pictures were made by McGraw-Hill after they conducted a market survey to determine the actual needs for such films, and they were filmed to serve as springboards for discussion groups. Subject matter of the individual films includes the choice of a mate, recognition of dif-



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The films contain significant material for upper elementary and secondary grades studying geography, social studies, public health, foreign trade, and international relations.

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The fascinating work of the U. S. Customs Inspectors at our border stations, our harbors, and our air ports of entry. Last year 50 million people arrived in the United States and were examined by the U. S. Customs Service. Detail is included in the examination of freighters and a passenger liner. The film clearly presents the suspense of people crossing an international border. Travelers are examined by a machine like an X-ray machine that sees through everything except hard objects such as metals or precious stones. The searching squad examines a ship from bow to stern for narcotics.

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No. 359, 600 ft., 16mm., color, sound, 16 minutes, price \$95.00

The U. S. Public Health Doctors and Quarantine Inspectors carefully supervise all people entering here from foreign countries so that no disease can be brought into the United States. In this film a plane from Mexico passes quarantine. Ships from Europe, Asia, and South America present different health problems, and the Quarantine Officers carry on their work with tact and efficiency. On the colorful Mexican border, the people take tests and pass the medical requirements for entry into the United States.

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ferences in basic personality types, competition between marriage and a career, and the necessity of basic personality harmony between marriage partners.

* * *

Johnstown Teacher Creates Historic Map to Commemorate Event

◆ Miss M. Margaret Greer, teacher in Westmont-Upper Yoder High school, Westmont, Johnstown, Pennsylvania, has compiled and drawn a historical map of Johnstown in commemoration of the city's sesquicentennial.

The original drawing of the map embodies many months of research.

At present, the map is in the process of being reproduced in New York City. Copies will be made available to the public during the sesquicentennial celebration.

The map is illustrated in six colors. It contains drawings of many present day Johnstown buildings as well as of historical structures which have vanished into the city's past.

Miss Greer, who resides at 1618 Sunshine Avenue, Westmont, is a member of one of Johnstown's oldest families.

Maps suitable for framing may be purchased for \$1.50 each postpaid from the above address.

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 Irish Children
 English Children
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 People of the Congo
 Giant People
 Using the Bank
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 Canals of England
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 Wheat Farmer
 Corn Farmer
 Story of Christopher Columbus
 Orange Grower
 People of Western China
 Cattleman
 Cattle Drive
 A Visit With Cowboys
 Truck Farmer
 Colonial Children
 Our Earth
 Development of Transportation
 Building a Highway
 Backward Civilization
 Making Electricity
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 Making Bricks for Houses
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VISUALIZING OUR VOCATIONAL EDUCATION

A Guest Editorial by Lawrence H. Dennis

Executive Secretary, The American Vocational Association, Inc.

THE VALUE OF AUDIO-VISUAL AIDS to the learning processes which constitute the task of the American schools has been well established. It is recognized that the larger part of all educational experiences are visual, auditory, or manipulative and that the ability of an individual to comprehend a new idea is made easier if all three avenues of experience are used. Verbalism, or the use of textbooks alone, has not proved the fastest way to effective understanding, *for the printed page can have little meaning to an individual unless he has within his experiences the sense perceptions to serve as a basis for intelligent interpretation.* The addition of audio-visual aids provides these necessary sense perceptions and, by making use of one or more channels of learning, brings about better comprehension and retention of subject matter.

The Audio-Visual Technique Is Welcomed

Every live teacher is alert to enrich and to vivify the curriculum and realizes that all types of materials must be thought of in terms of improving instruction. Teachers of vocational education welcome the development of audio-visual aids with their usual jubilation over any technique which promises to promote efficient teaching and effective learning. Teaching aids of some sort are used to a large extent in every portion of the vocational education field, with equipment ranging from the commercial sound motion pictures and chart materials to personally-developed demonstration equipment. Audio-visual aids have definite place and value as teaching tools in all phases of the vocational arts. They are of help in imparting information and in demonstrating and teaching skills. They help students to learn to sew a straight seam and to understand the need for soil conservation: they help to clarify the intricacies of machinery and to teach the manipulation of hand tools. The thousand and one things which must be taught and mastered in the many and complex phases of vocational education are made easier and more understandable by the intelligent use of audio-visual aids in instruction.

Vocational teachers are among those who have taken most readily to the audio-visual medium. They do not rely heavily on books in their teaching but emphasize learning by doing. Demonstrations of how to do a special task are an essential part of instruction and here the teacher can take advantage of all the many audio-visual aid techniques. Another reason why vocational teachers take to the audio-visual aid medium is that mechanical equipment is often involved — and mechanical equipment is, as a rule, no problem for the vocational instructor. In many schools, a vocational instructor has become the specialist in audio-visual aids and has been put in charge of the equipment necessary to maintain a program of visual aids in instruction in a school system.

The war-training programs gave a timely impetus to

the use of various interest-getting devices which cause concentration of attention and thereby accelerate learning. The use of audio-visual materials was not a new idea, but the desperate need for making the most of all instructional time led to the intensive development of teaching aids and wide experimentation with new types of supplementary teaching devices. Perhaps it required a war and its demands for immediate and efficient training to give new life and growth to these well-known techniques of instruction. The results of the accelerated training courses given by the armed forces were a challenging evidence in favor of the use of audio-visual aids.

Teachers Need to Know How to Use Films

With the value of this type of teaching assistance firmly established, the problem for educators in the vocational fields becomes one of developing methods and programs to accomplish the goals inherent in desirable visual aids activities. When adequately instructed, teachers can use an increased number of the visual materials at their disposal. A lack of information about existing material, a lack of appreciation of their educational value, and a lack of skill in their use undoubtedly prevents maximum use. These handicaps could be overcome by improved training courses in our colleges and universities. Many teacher training institutions are now becoming equipped with proper facilities to offer adequate courses for the training of vocational teachers in the making and use of audio-visual aids.

It requires no soothsayer to predict an ever-increasing use of audio-visual materials in every field of human activity. Industry, business, the professions, and government will extend their use of films and like materials to create further public interest in their work. It becomes the responsibility of the schools to give young people the experience with various mediums of communication with which they will deal as adults. The schools will experience increasing use of audio-visual material because of the impact of their use in out-of-school situations.

A Responsibility of Vocational Education

Vocational education has a particular responsibility in this connection. We are living in an age of rapid change, and technological advances are so great that assimilation becomes a major problem. It is important for workers to understand the new developments in their fields and to realize the implications of new tools and new processes. To do this it is essential that we use the senses of sight and sound to provide vicarious experiences to keep up with the march of time. Young people need the assistance of audio-visual materials in their learning experiences in school — they need to understand how to utilize audio-visual aids in maintaining their place in the adult society. This is the challenge which teachers of vocational education must accept. ●



by **L. H. Caldwell**

Director of Audio-Visual Education
at Kansas State Teachers College,
Pittsburg, Kansas

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AUDIO-VISUAL AIDS BROADEN LEARNING EXPERIENCES IN VOCATIONAL EDUCATION

THOSE OF US WHO HAVE WORKED with vocational education students will agree that men and women in this field soon develop a marked characteristic: they prefer graphic learning situations which allow them to observe, examine, and to "do." The reverse can also be stated: that they have little patience with long verbal explanations and instructions. While this is also true of students in any area—more true than most of us will admit, the vocational education student resists methods which are loaded with the use of abstractions and considers that "doing" is often the means as well as the end to be gained in any learning process.

Vocational education at the Kansas State Teachers College of Pittsburg is an important phase of the school program. The school was originally founded for instruction in "practical" work, and named the State Manual Training Normal. Most of the vocational work is located in the Department of Industrial Education, which also includes Industrial Arts Education. Major emphasis is placed on producing vocationally

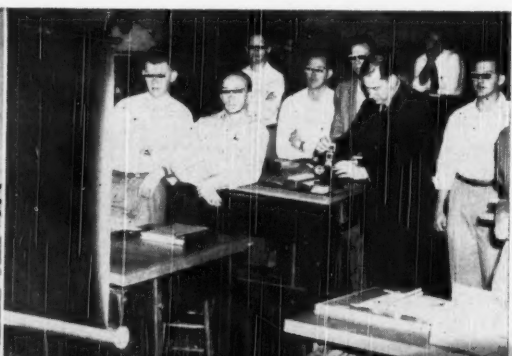
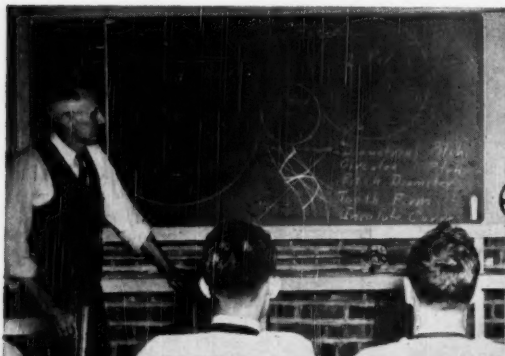
competent graduates, and teachers of the industrial arts.

Vocational education deals both intensively and extensively with first-hand experiences. So do audio-visual aids. It is only natural, then, that audio-visual aids are particularly usable in vocational courses.

While, in years past, the search for direct means for bringing learning experience before the student or apprentice as he learned about machines, ended with the actual bringing of the roller-mounted engine into the classroom, we have additional and improved means today. To bring the whole engine into the classroom does not admit that there are times when parts or processes deeply hidden in the interior recesses of the motor cannot be observed. Two alternatives are possible: (1) to dismantle the motor and observe the part, and (2) to resort to 1950 learning techniques available in sound motion-picture films which actually take the learner right into the interior of the mechanism itself and there, through clever ani-
(CONTINUED ON PAGE 16 FOLLOWING PICTURES)

The blackboard is another time-honored device in probably every vocational shop or classroom. But as with the demonstration, capable vocational instructors seek to improve their blackboard techniques or add variety.

Third-dimensional presentation is not very prevalent, but finds particular application in drafting. The special viewing spectacles are an essential part of the procedure of using the three-dimensional slides.

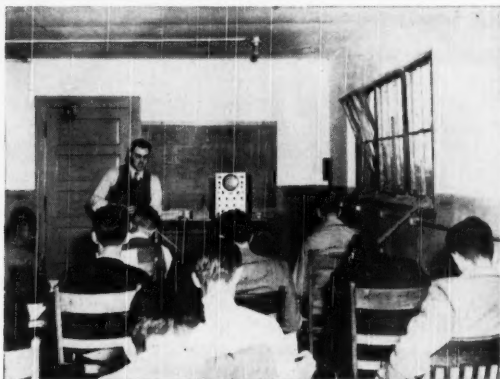




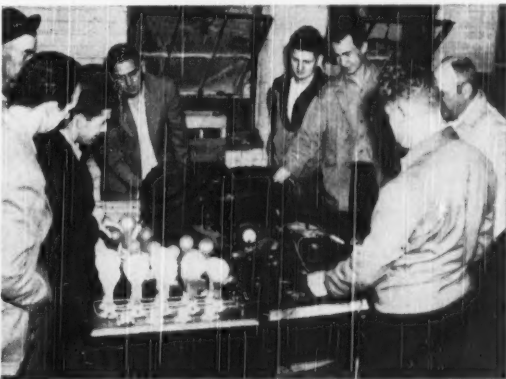
The scale model is used also as a guide for drafting and design. It may be made to full scale or partial scale. It may be made of the actual material, or be made of substitute material, such as paper or cardboard. Such models serve well to supplement the blueprint or other drawing, for specific parts of a total design. They are also easily stored for future use.



The enlarged model is extensively used in vocational learning, either the enlarged or the miniature form. The enlarged model is an example of doing with reality what projection does with pictorial material, making it large enough that detail can be shown more clearly and so that groups can view it to better advantage. An example of the enlarged model is the micrometer shown.



Symbolic diagrams find special application to radio and other areas of electricity. They are an essential element of teaching, and the skill in using them is an essential skill in the trade.



Some other devices, or combinations of devices developed by vocational teachers almost defy naming. This electromotive device, a combination of the real thing plus simplified wiring shows motor winding.

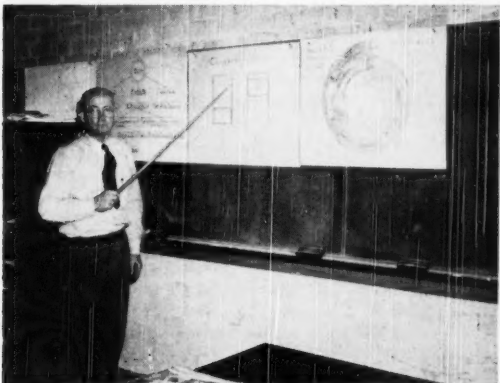
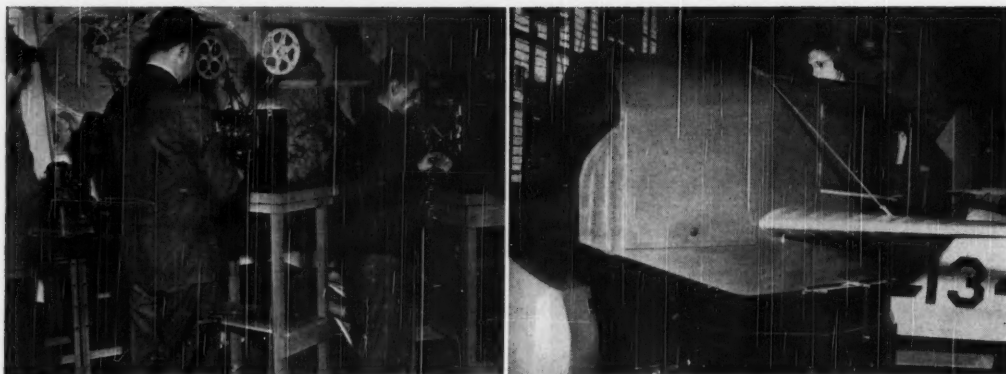


Chart material is plentiful for vocational work. Teacher-made charts, explaining such things as compression ratio or valve timing in auto mechanics, when carefully done, undoubtedly save in the long run, although they take considerable time to produce.



Other senses receive consideration in all vocational courses, in addition to the visual and auditory. An illustration is this demonstration of the viscosity of oil. Assuredly the "feel" of surfaces and textures is a most important ingredient in any worker's skill.



In the education of better vocational teachers, two factors might be particularly emphasized: the improvement of techniques of presentation, such as the demonstration, and gaining proficiency in the use of the newer projection machines and devices. Sound projectors are of course the most complicated of these, but mechanically-adapted vocational teachers master them in short order.

The mockup was developed extensively during the war, giving the vocational teacher many examples to follow, in developing others for his own use. The Link trainer is an example of the working type of mockup. Others of a static nature can be constructed, illustrating essential parts of operations or processes, stripped of complexities. The making of mockups is time-consuming.

(CONTINUED FROM THE PRECEDING PAGE)
mation, allow the viewer to see what actually transpires as the entirely sealed-up motor goes through its hidden cycle of intake, compression, power stroke, and exhaust.

While today the paint spraying demonstration may be the best demonstration in its field, or the field trip may be the best way of seeing some actual conditions in industry, subsequent discussion again and again reveals the fact that, in today's great industries, more explanation than can be gained from observation itself, is frequently necessary in order to tell the whole story. It is for this reason that the sound motion-picture film and its companion, the filmstrip, are being added in ever-increasing numbers to vocational education.

★ *Motion pictures play a dynamic part* in vocational education. They show processes, devices, operations, and materials. They show sources of materials, working conditions, views of related jobs, safety requirements, and other related job information, although this may not be considered vocational in the strictest sense of the term. Vocational teachers commonly rely rather completely on the use of the actual machine or operation. They sometimes overlook the contribution of the motion picture, particularly in showing what cannot possibly be seen in working with the "real thing" . . . such as what goes on within the welding arc or flame and the pool of metal . . . or operations that move too fast for the eye to catch, which can be slowed down by slow-motion photography . . . or parts of a machine or process which are too small to be seen, even on close inspection.

The film aids situations where quarters are too cramped to get a group close to a machine so they can see to advantage. It makes understandable complex movements or processes which need to be stripped of at least part of their complexities to be understood. It presents expert demonstrations which can be re-

peated as many times as desired, always repeated the same way. The many advantages or aspects of the large shop and of industry itself are brought into the shop class.

Filmstrips for discussion find many examples in vocational education, particularly those based on or correlated with a motion picture film. Much was done during the war with this type of aid, and vocational teachers can profit by the wide selection of filmstrips and films available. Related areas are also well served by filmstrips—such as the safety field. The related text-film series or "visual aids unit" consisting of films, strips, and correlated textbook or manual is especially helpful to the vocational instructor and to his class.

In the complete vocational education situation, the new materials of instruction will be used when they can accomplish learning objectives in a manner which is of increased effectiveness. In many situations the sound motion-picture film alone can reach out and bring in the actual filmic record of the experience which is sought even though it may exist a thousand miles away from the classroom itself.

OBJECTIVE: MORE LEARNING IN LESS TIME

In learning how to read the calibrated scale on the micrometer, the student may learn best from an enlarged model just as later a motion-picture film explanation may fix his impressions. The "best" learning tool may in another situation be the scale model, or a chart of a process. Other learning needs may call for the use of cutaways, of diagrammatic presentation on the blackboard, or of a simple three-dimensional drawing or sketch.

In any learning situation the thinking instructor will ask himself this question: *what material of instruction or combinations of the same will allow me to achieve effective understanding and the mastery of skill in the least amount of time?* ●

How Our Schools Use Audio-Visual Materials to Improve the Quality of Vocational Education

by John A. Kubiak

Wisconsin State Board of Vocational and Adult Education

THE WISCONSIN SCHOOLS for Vocational and Adult Education use audio-visual films and filmstrips as one of a number of different approaches aimed to appeal to different learner characteristics. Their enrollees consist of juveniles between 14 and 18 with or without high school diplomas, young adults in need of training or retraining, and older citizens interested in self-improvement.

All come seeking some type of educational adjustment. Therefore, since all educational offerings are based on the knowledge that a special group of people is being served, the educational offerings are planned to find response through one or more of their most highly developed receptive senses: sight, hearing, touch, taste, and smell.

This education has accepted the fact that these people will learn a great deal more through the sense of sight than through any other sense; that applying stimuli to several senses in combination will be most effective. Since all instruction offered in these schools has limited and specific objectives and is closely geared to attain immediate goals, all teaching devices are given full play in the over-all program.

Each Type of Aid Serves Its Purpose

This diversity of aids enables them to offer courses in terms of the person who is to acquire them, not in terms of content itself: the unskilled become skilled, the untrained achieve training; the ignorant information, the bored enthusiasm; the narrow broaden their outlook and the hopeless their confidence.

Each separate aid is recognized for its specific service. For example, in a course on radio, types of antennas, the choice of aids for effective instruction is: the opaque projector, first. Next in order are charts, blackboards, motion pictures, photo slides, handmade slides, models, and demonstrations.

In the following broad areas of instruction, the use of audio-visual films and filmstrips ranks first:

1. Motivating occupational interests
2. Meeting reading inabilities and deficiencies
3. Adjusting adults

Although juveniles of varied educational backgrounds are enrolled on a part-time or full-time basis depending on their compulsory school attendance law status, the purpose of their schooling has narrowed down to that of preparing for a job. The question of what job is best suited to their individual capacities becomes an immediate concern of the school. It is approached realistically.

During the testing and counseling period, films dealing with exploratory experiences are provided dealing with the activities in trade or technical occupa-

tions in agriculture, in business, and in homemaking. Attention is centered in these films on the worker and what he does. A few sample films used for this purpose are: *The Woodworker, Machinist and Toolmaker, Engineering, Radio and Television, Automotive Services, Nursing.*

The young person who had dropped out of high school for economic or scholastic reasons is given needed direction with the aid of such films as: *Finding Your Life Work, I Want a Job, A Thousand Hours.*

Help in Overcoming Reading Handicap

Audio-visual films and filmstrips are being used very effectively in surmounting the handicaps in reading. The program of testing in our vocational schools has discovered that the school "drop outs" and unadjusted youth have some measure of reading inability or deficiency, or both.

This program of teaching through the eye, or eye and ear at the same time, is based on several sound convictions: 85% of human knowledge is absorbed through the sense of sight; many individuals cannot form abstract images by reading or hearing words, or they may even form entirely wrong ones since we all interpret the world about us in terms of our own background or experience.

A major part of the things people learn through the ear are forgotten in a relatively short time and it is difficult to recall accurately what is heard. Things
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SKILFUL PRODUCTION of training films by expert hands is illustrated by this setup shot in the studio of Audio Productions, Inc. An aircraft engine scene is being made.

(CONTINUED FROM THE PRECEDING PAGE) people see make a more lasting impression and there is less difficulty in recalling the object or process with increasing accuracy. Finally, mental images created through stimuli to eyes and ears at the same time become vivid and can be recalled easily.

Films and filmstrips have first choice for approaching these goals; from among all other aids they have the added characteristics of motion and the aura of entertainment, both of which create and hold interest. Many films are used to instruct in social behavior, democracy, and training the needed skills for a job. They follow the pattern of: *Our National Government*, *Amazing America*, *Americans All*, *Toward Unity*.

Typical Film Use in Foundry Practice

As an illustration of teaching a skill with the dependence in the main on sound films, a course on foundry practice can be mentioned here. The film titles themselves tell the story. For bench moulding, the audio-visual aids used are: *Molding With a Loose Pattern*, *Molding With a Split Pattern*, *Molding With a Gated Pattern*, *Molding Part Having a Vertical Core*, *Making a Simple Core*; in floor molding the films deal with: *Molding a Horizontal Cored Part*, *Molding With a Three-Part Flask*, *Molding Part With Deep Green Sand Core*, and *Molding a Valve Body*.

High school graduate enrollees find these vocational school audio-visual aided courses time savers. Their previous educational achievements increase their sensory perception. The impression of images is rapid and deep enabling them to become proficient in their "doing" training in a comparatively short time. Since proficiency in a skill is the criteria of readiness for a job, placement of these trainees often follows quickly after their contact with their local vocational schools.

In the adult division of our vocational schools, subject matter must have substance while being presented. Adult minds are often found rusty at first, but they know what they want and will not stand by, should flimsy material and dull teaching be offered. The courses aim to start where the adult is and end where he wants to be. The units are simple and made vivid by visual presentation.

While, in general, instruction is offered adults to

meet any interest expressed by a sufficient number, subjects perennially popular both in day time and evening classes fall into three categories: trade-extension, homemaking and general improvement.

A machinist comes to an evening trade-extension class to perfect himself in the operation of a vertical milling machine. He is instructed with the aid of films such as: *Using a Shell End Mill*, *Milling a Helical Groove*, *Cutting a Round End Keyway*, *Milling a Circular T-Slot*.

Films Help the Feminine Learner Too

An ambitious office girl decides to improve her efficiency. Several sessions at night school which are spot-lighted by films such as *Advanced Typing*, *Short Cuts*, *Maintenance of Office Machines*, enable her to master time-saving techniques.

A young wife spends profitable afternoons in a nearby vocational school learning about Food and Nutrition, Growth and Development of Family Members, Health, Safety, and Home Care of the Sick, Management of Family Resources, Home Improvement and Housing. She carries away vivid images of approved homemaking practices from such films as: *For Health and Happiness*, *Care of the New Born Baby*, *Bathing the Bed Patient*, *Home Safe Home*, *A Passport to Health*, *Managing the Family Income*, *The Dawn of Better Living*.

An apprentice during one of his half days which he spends each week in the vocational school will find his lesson detailed by films. If he is a carpenter apprentice, his instruction on blueprint reading will be explained in part by the film: *Section Views and Projections*, *Finish Marks*. It will help him follow the first layouts given him by his employer.

It is maintained that the devotion of adults seeking self-improvement in evening classes at their neighborhood vocational schools is fostered by the enjoyment they receive from the instruction which is always enlivened by supplementary devices.

Teachers in arts, crafts, music, current problems, everyday psychology, language study, and creative writ-

(Courtesy Operadio Mfg. Co.)



ing vary the monotony of repetition, stimulate the imaginations and enrich their students' experiences by judicious use of audio-visual aids. Often these make it possible to present a necessary concrete idea of a process, or present satisfactorily complicated processes in comprehensive detail.

Pupil study guides have been developed by instructors in cooperation with their students and are used generally by the pupils whenever a film is shown as part of the lesson. The one used in homemaking classes is a typical example. These are the items included: Title of film, Correlated with (name of homemaking unit), Date, Pupil's Name, Objectives of Lesson, Brief Description of what to look for in film, Questions for class discussion, List of references on lesson, Application which may be made.

The films and filmstrips mentioned in this article are all owned by the Wisconsin State Board of Vocational and Adult Education. They belong to a grow-

ing library of audio-visual films and filmstrips which is housed and supervised by the University of Wisconsin Bureau of Visual Instruction. It is at the disposal of all vocational schools in the state for a small service charge. Each booking of no more than three films may be used for one week.

The bookings are made to the director of the school, or to someone of the regular staff designated by him. Insured parcel post or express transportation is used depending on which service is the more economical. The user is liable for any damage to films and filmstrips while in his possession. Bookings which include the films *Using Visual Aids in Training*, or *Tips for Teachers*, or *Giving a Shop Demonstration* are made with noticeable frequency. In-service training of its teachers by audio-visual aids is consistent with the realistic program of education maintained by the Schools of Vocational and Adult Education. ●

Specific Areas of Vocational Education with Related Materials for Classroom Application

by A. J. Mickelsen

Visual Aids Counselor, Milwaukee Vocational and Adult Schools

IT IS GENERALLY ACCEPTED at this time that sound films and filmstrips (silent and sound) used as supplemental tools of instruction can and do contribute much to general education. It is the purpose of this article to point out specific instances where these aids are used to advantage in vocational education.

An analysis of how vocational education functions will bear out the above statement. The vocational teacher in any area has the responsibility of turning out a worker who can get and hold a job in business or industry. Vocational education aims to teach basic skills and abilities and the great body of related information considered essential to a competent worker. This related information consists of mathematics, science, drawing, technology—information dealing with occupational knowledge, understandings and attitudes. Sound films, and to a lesser extent, filmstrips are used to improve the instruction in the development of skills and in the building up of a useable body of related information.

It is a well established fact that the quality and quantity of related information has a direct bearing on the "doing" activities of the learner. If the information given is vital and adequate the "doing" becomes more purposeful. Sound films and filmstrips help greatly in teaching related information.

The so-called skill films, those designed to teach operational skills are used in our vocational education program. We know from experience with scores of these films which are really talking lesson units that they get learners started on acquiring skills in less

time, with more to work with and with a greater desire to learn than any other method yet devised.

Sound films, supported by silent and sound filmstrips, help solve *The Why, The What, and The How* of teaching. In short, audio-visual aids are used to good advantage in motivation, they are used to increase the amount of material taught and they are used to solve "how" problems in teaching in their own unique way.

Setting Up Effective Use of Audio-Visual Aids

In order that teachers properly utilize these aids it is necessary: (1) That they be taught their value and proper use. At the Milwaukee Vocational and Adult Schools, the In-Service Training course offers this instruction. (2) Aids must be available when needed. Basic films and strips that teachers use regularly are in our library. (3) Shops and classrooms must be equipped for showing. We have set up our rooms for projection and have enough projectors to satisfy the present demand.

Aids That Improve Vocational Education

To better show how aids are used, a list of title of aids follows, which are used in specific areas. The listing will be by no means complete, but will be broad enough to show a wide appreciation.

Machine Drawing: (Text used: French's Engineering Drawing). The seven films (with strips) correlated with this text are in our library for use when needed. This is a difficult course, but these films and strips have

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helped to teach it. Read what one drafting teacher has to say:

"These teaching aids are a tremendous help to the teacher. They explain clearly and rapidly and in an interesting way the various phases of mechanical drawing."

Electrical Machinery: In this course all phases of electricity are taught. Some of the films used in teaching this subject are: 1. *Inductance*; 2. *Capacitance*; 3. *Rotating Magnetic Fields*; and 4. *Motor Control*, etc.

The teacher who has taught this course for three years has this to say of their value. "I have found these films to be very effective and easy to use. . . . Phases of electricity which are difficult to explain, and pictures in books are very efficiently and thoroughly covered in this manner. In showing these technical films, the stop mechanism of the projector is used often to allow time for explanations of difficult sections. The use of the accompanying film strips has been found helpful in the discussion following the showing."

Pattern Making and Foundry: In this area, basic films which give specific information on how to perform certain jobs are available. To give an idea of the scope of these films, consider the following film titles: *Charging and Operating a Cupola*; *Molding a Part With Deep Green Sand Core*; *Molding With a Split Pattern*; *Making a Matchbond Pattern*; *Making a One-Piece Flat Pattern*; and *Making a Segmented Pattern*.

The two teachers in this area share a projector and keep the films in their own shops. Films are shown to an entire class or to certain individuals. This can be done without interrupting the work of the rest of the class. The teachers report enthusiastically their results.

Machine Shop: Here also is a host of "talking lesson units" dealing with basic operations on the various machines. To list a few: *How to Cut a Taper*; *How to Rough Turn*; *How to Straddle Mill*; *Fundamentals of End Cutting Tools*; *Cutting a Keyway*; and *Plain Indexing and Cutting a Spur Gear*.

These are basic unit lessons and the films do the job of enabling the student to group more quickly the important things to know before going to work on a machine.

To allow for better use of these sound films in our Machine Shops we are conducting an experiment with

the use of head phones. In one shop we have set up a projector (with shadow box screen) having outlets for a half dozen head phones. Under this set-up, one to six pupils can view a skill film at the exact time that it is needed without disturbing other members of the class. This plan seems to be working well in that the teacher reports that students learn more by this method of presentation than through merely reading an instructional unit.

Measurements: films dealing with measurement have been found particularly useful in many areas. Films such as: *The Bevel Protractor*; *Fixed Gauges*; *The Micrometer*; *The Vernier*; and *The Steel Rule* do an excellent job in teaching construction and use of measuring instruments.

Metallurgy: is a highly technical subject and films are used to help clarify difficult phases. I would like to include here a statement made by an instructor of this subject. "Most films dealing with any phase of metallurgy have been carefully worked out. Every step in what is often a complicated technical process has been worked out and illustrated. These films do two things: they make a vivid impression on the student and they remind the teacher to more thoroughly analyze his work so that he can do a better teaching job. Films enhance the value of the work to the student so that he is stimulated to do a better job and his learning proceeds at a much faster rate."

Distributive Education: Training sales people involves personality development. I would like to mention here the use of one film which has been used with great success in this field. This film is *By Jupiter* and our teachers say it is a "must" in the field of human relations.

Sheet Metal: A series of twenty-one silent filmstrips dealing with specific jobs in sheet metal are used to supplement sound films.

Cutting Tools: Another excellent series of silent strips deals with tungsten-carbide tools involving how they are made, how they are used, and how they are maintained.

Radio: Silent filmstrips dealing with such subjects as *Audio-Frequency Amplification*, *Capacitive Reactance*, *Vacuum Tubes* are used frequently in our radio classes. They offer a quick method of showing certain hook-ups by saving the time of the teacher in making drawings on the blackboard.

The Filmstrip Is Useful In Many Areas

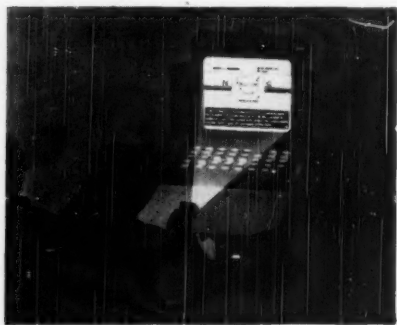
♦ Filmstrips, both silent and sound, are also used in vocational education. Their use, however, is not as well developed as that of sound films. I would like to list here some of the areas in which filmstrips are used.

Auto Mechanics: Strips dealing with specific jobs on repair and maintenance such as (1) *The Starting Motor* (2) *Ignition Trouble* (3) *Wheel Alignment* (4) *Engine Tune-Up* (5) *The Clutch*, etc., are used to help students follow through on a job.

Woodworking Trades: Filmstrips dealing with shop safety and machine operation are used in the woodworking shops.

Diesel Engines: An excellent set of five sound filmstrips on *Diesel Engines* which was produced by Nordberg Mfg. Co., of Milwaukee is used as an introduction to the course on Diesel Engines. •

LIGHTED PICTURES prove a real help to shop trainers. (Jam Handy photo).



Where Does Your State Stand?

Progress in Educational Opportunity Among the States Is Measured
In the Mid-Century Survey Reports on State Audio-Visual Progress

OUR GROWING SCHOOL POPULATION is an irresistible force in the American democracy. The crises it presents are real and immediate in terms of overcrowded classrooms, inadequate numbers of teachers, and a period of history in which universal understanding of the sciences, technology, and human relations is vital to our survival in the family of nations. The peak load has not yet been reached.

This is education's challenge to democracy, too, for its citizens must provide the resources and share the planning to underwrite this basic first guarantee of our way of life — the freedom of equal opportunity to learn — shared equally by Americans everywhere.

In the pages of our first Mid-Century Report on Progress in Audio-Visual Education we presented the important role of these modern tools of instruction as they are now ready to help meet the nation's problem:

1. Audio-visual materials in the classroom help our teachers provide an "equality of information" with greater retention of subject matter in a shorter period of time.

California's citizens almost universally approved (83.8%) the use of audio-visual tools in their schools in a public opinion survey conducted for the Education Committee of the California State Assembly. 56.6% of the citizens believed "that it would be possible for a teacher to handle larger classes with satisfactory results." A million dollar appropriation was made.

2. There is universal agreement that the place for these tools is in the nation's classrooms where they are readily accessible for broadening or strengthening areas of the curriculum to which they are particularly suited.

All across the nation, there is growing support of city and county audio-visual programs with per pupil budgets increasing from a few cents to as much as \$3.57 (Freeport, Illinois) and generally averaging from \$1.50 to \$2.00 per pupil in the communities. Belief in audio-visual learning advantages, like many things, begins at home. What is your local a-v budget?

3. The fundamental teaching tasks common to all our schools are greatly aided by audio-visual enrichment materials. Real understanding of the democratic processes and principles by all young Americans is our best guarantee of its future in their hands. There is evidence of better understanding of complex science subjects, quicker comprehension of technical data through visualizations, increased ability in reading, and greater retention.

As Alexander J. Stoddard, Los Angeles' Superintendent of Schools, said, "Dynamic educational tools — the entire audio-

visual chest, in fact — are readily accessible to city and country schools alike. There are many services these co-teachers can offer in this great task."

4. It is the obligation of all citizens to provide the best and therefore the most effective tools for their schools. How well U. S. citizens are doing in meeting these obligations is reflected in the SEE & HEAR state surveys reported in these pages from 47 states, of which nearly 20 have now provided state activities and are now maintaining state officers for audio-visual services.

There are noteworthy examples of state activity in audio-visual education where considerable progress has been made since the war. Outstanding are Arkansas (state audio-visual budget of \$176,500); California (state audio-visual budget \$1,010,000); Ohio (state audio-visual budget \$156,000); Oklahoma (state audio-visual budget \$125,000); Texas (state audio-visual budget \$42,360); and Virginia (state audio-visual budget \$62,793). Montana, though small in size of its school population, shows encouraging promise with an annual appropriation for audio-visual materials of \$21,500. Georgia has made recent progress (and can make more) with appropriations totaling \$175,000.

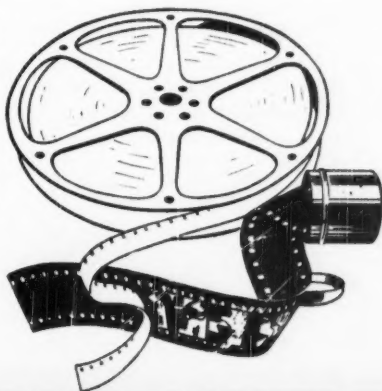
5. Some of our great sovereign states are laggard in realizing the importance of these tools in their learning systems. New York showed pioneering foresight in establishing a Bureau of Audio-Visual Aids but should clearly have a sufficient budget to help its schools and to increase statewide effectiveness of its program.

The common denominator of progress in any educational program is the support of that program which the community, the school administration, teachers and its appointed and elected authorities give to it. The tools are at hand. The method long since proven should be quickly put to use. There is no economy in inefficiency or outdated methodology. That is waste and we are wasting human resources as well as valuable time and money. We can spare neither.

As Francis Dunn, Jr., chairman of California's State Committee on Education and a member of the Assembly in that state said in these pages recently "our school board members, administrators, teachers, parents, and all who believe that the future of America is bound up

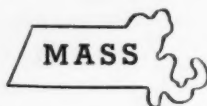
in the kind of educational opportunity offered to America's future citizens, should not be satisfied until the projection screen is as much an accepted part of our classroom furniture as is the familiar blackboard."

Future progress in realizing this goal depends on you—the citizen—and you—the teacher. The citizen can play a decisive role. —OHC



28 State Reports On Audio-Visual Progress

New England



State Population: **4,900,000**
 Number of Teachers: **24,250**
 Number of Schools: **2,199**
 Budget for Education: **\$115,600,000**

• In this state, rental libraries are maintained at the State Department of Education, the Extension Service of the University of Massachusetts, Boston University, and at least six commercial libraries. More and more audio-visual departments are being set up by the school systems.

Boston's Public Library also maintains a film collection. At least eight local city school systems own their libraries and ten local school systems provide audio-visual courses for in-service teachers. Boston University offers a degree of Bachelor of Science with a major in Motion Pictures and Visual Aids. In addition, the Massachusetts Teaching Aids Society holds monthly meetings.

An estimated 725 teachers and prospective teachers receive audio-visual training from these institutions including the University Extension Service of the State Department of Education which offers courses at four college centers.



State Population: **550,000**
 Number of Teachers: **3,400**
 Number of Schools: **1,692**
 Budget for Education: **\$15,000,000**

• Within the last two years, educational films used in New Hampshire have more than doubled. The three-year-old Audio-Visual Center at the University of Durham is run by the State Department of Education and the Audio-Visual Department of the General Extension Service at the University of New Hampshire. This Center provides rental films

to schools in the state and to other states as well.

The University of New Hampshire sponsors clinics each year which continue to show increasing interest in audio-visual materials. The University also holds a conference every April. The New Hampshire Audio-Visual Association has a yearly meeting as well.

About 265 teachers annually receive audio-visual material training at one of the University's centers, the recently established center being at Plymouth.



State Population: **375,000**
 Number of Teachers: **3,138**
 Number of Schools: **1,033**
 Budget for Education: **\$10,200,000**

• Vermont has one large rental library, the Vermont Film Service at the University of Vermont in Burlington, which is a joint project of the University and the State Department of Education.

Most educational institutions use audio-visual materials and many own films and filmstrips, though in the state there are no libraries maintained by cooperatives or school systems.

Audio-visual teacher training may be obtained at the University of Vermont, the State Teachers College in Lyndonville, the State Teachers College in Castleton and the State Department of Education through its Preview Committees. The University holds a workshop each summer. Also each year the Vermont Audio-Visual Association meets at the time of the State Teachers Annual Conference in Burlington.

A CONTINUING SURVEY

One additional direct state report (from Georgia) and twenty-seven other state surveys conclude this two-part See & Hear feature on state audio-visual progress. Part I appeared in our January Mid-Century issue.



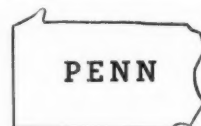
State Population: **4,800,000**
 Number of Teachers: **29,000**
 Number of Schools: **1,803**
 Budget for Education: **\$155,000,000**

• Rental source films include a large commercial library and the State Museum, the latter being run by the State Department of Education. At least sixteen cooperative film libraries serve the smaller school systems in the state, and the Morris County Free Library correlates audio-visual aids with their library books in a distribution through over one hundred agencies.

Six state teachers colleges in addition to Rutgers and New Brunswick College for Women offer audio-visual courses. Activity in audio-visual study groups throughout the state is continuously increasing. These groups include the New Jersey Visual Education Association, the New Jersey Education Association, the South Jersey Association of Audio-Visual Aids. The Newark Board of Education has an alert audio-visual division, and the Film Councils of both Newark and Summit are continuing their adult community film work.

The Newark Visual Bureau working with the Public Library and the Board of Education has become outstanding for its work in the East.

A bill was recently introduced to the New Jersey State Assembly proposing a minimum of ten cents per pupil for audio-visual materials to be used throughout the state.



State Population: **10,750,000**
 Number of Teachers: **62,060**
 Number of Schools: **9,218**
 Budget for Education: **\$295,000,000**

• This state has a long and active record in the use of visual materials in its schools. For many years a two-hour course in audio-visual education has been required for permanent certification as a teacher. Nearly all of the state's universities and colleges offer this required course (in 1949, sixty-three institutions in the state offered it), and about 12,000 teachers and teachers-to-be receive such training.

Five large commercial library sources rent out films within the state. Other rental libraries are established at Pennsylvania College for Women, Bucknell University, Pennsylvania State College, Indiana Teacher

College and Millersville Teachers College. There are five cooperative libraries.

Many city school systems have their own libraries, the budgets of which range from \$300 to \$10,000.

The South



State Population: **2,850,000**
Number of Teachers: **24,500***
Number of Schools: **3934**
Budget for Education: **\$59,800,000**

* Alabama expects to develop an overall state program within the next two years since no present such program exists. A film library is maintained at the University of Alabama in Tuscaloosa where two summer courses in the evaluation and utilization of audio-visual materials are taught.

There are three large commercial libraries within the state, while a considerable number of libraries are locally owned by school systems. There are at least thirteen city, town, county, or state teachers college libraries of over fifty reels, with the budgets ranging from \$500 to \$12,500 per annum.

Birmingham schools offer in-service courses in the use of audio-visual materials.

* Including emergency certificates



State Population: **2,400,000**
Number of Teachers: **19,760**
Number of Schools: **2,164**
Budget for Education: **\$92,000,000**

* The most active part of Florida's audio-visual program comes from the fourteen county film libraries and their county summer workshops. The libraries spend part of their time in audio-visual training.

The Bureau of Visual Instruction of the Florida General Extension Division is constantly developing new programs in counties all over the state and holds regular rural and urban conferences on audio-visual education promotion.

The annual Audio-Visual Workshop is held at the University of Florida. It is conducted jointly by the General Extension Division and the College of Education. Nine-week in-service courses are given by the University in two counties. Florida State University at Tallahassee offers similar courses in addition to one of the few courses on training and standards for film librarians.

At the annual State Teachers Convention, an audio-visual session is conducted by the State Audio-Visual Association.

GEORGIA



State Population: **3,123,723** (1940 census)
Area of State: **58,725 Square Miles**
School Population: **752,046**
Number of Teachers: **23,500**
School Divisions: **159 County Systems and 28 Independent**
Budget for Education: **\$50,875,000.00** (49-50)
Audio-Visual Budget: **\$175,000.00** (49-50)

Division of Audio-Visual Education established in 1947 in the State Department of Education

History of the Department: The Audio-Visual Education Service began functioning on November 18, 1947, with the first film shipments from the State Department of Education. Preliminary work began in November, 1945, with the appointment of one person to make plans and organize a Division of Audio-Visual Education.

This service is free to the public schools with the exception of a \$10.00 yearly fee for insurance on damaged and lost material. The Department pays transportation costs both ways on the material. (Georgia is unique in that it has the only state-wide service of this type.)

1947-48, 325 schools registered with the Department and approximately 10,000 bookings were shipped. 1948-49, 517 schools registered and used 34,134 bookings. To date, this school year 1949-50, 675 schools are registered and it is estimated that bookings will be close to 45,000.

During the fall months of 1949 Governor Talmadge and the Chairman of the State Board of Education, Mr. George P. Whitman, Jr., made available \$100,000 to establish the first regional film library. This library was located at Collegeboro, Georgia, and is housed in the Library Building of Georgia Teachers College. The college furnishes the space and in return their teachers and demonstration school have the use of the material when it is in the library. This library is now serving 33 counties in that area. Plans are being made for the establishment of additional libraries as soon as possible. Schools are limited to 5 films per week at both libraries.

This fiscal year, 10 grants of \$1,000 each were set up to be matched on a 50-50 basis by County or Independent Systems for the purchase of materials for local audio-visual centers. Finally a total of 14 systems were granted this aid and those centers are now engaged in previewing materials and placing orders. These grants will be increased next year if possible and other centers started.

Relationship: The Audio-Visual Education Service is organized under the Textbook and Library Commission and has equal rank with the Textbook Division, School Libraries, Li-

brary Extension Service, and Rural Library Division. Line of Authority is from the State School Superintendent to the Director of the Textbook and Library Commission to the Director of the Audio-Visual Education Service. All Divisions of the State Department of Education receive help and guidance on audio-visual matters from the service.

Budget: During the fiscal year 1949-50 a total of \$214,000.00 will be spent in this program. \$75,000 regular appropriation, \$100,000 for the new Collegeboro Film Library, and \$39,000 that was a carry over from the last fiscal year.

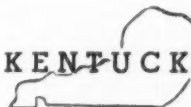
Staff: The staff is composed of a Director, Consultant, Manager at Collegeboro, three Bookers, four Inspectors, two Stenographers, one Typist, and seven Shipping Clerks.

Activities: The Audio-Visual Education Service has the responsibility for:

- Selecting materials for use in the State and regional libraries.
- Furnishes a consultant to serve in an advisory capacity for county and city in the selection and evaluation of materials.
- Conducts A-V workshops, clinics and offers inspiration for county teachers meetings and faculty groups.
- Cooperates with the teacher training institutions during the year and makes films available during the summer months for these institutions.
- Distributes sound films and recordings to the public schools of the State (Sponsored films are not circulated). Films are furnished to any school related group such as the P.T.A., 4-H Clubs, Home Economics groups, etc.

The Division owns approximately 7,000 prints of 1,200 titles. New titles are previewed during the year and most purchases of new titles are made near the end of the fiscal year.

KENTUCKY



State Population: **2,820,000**
Number of Teachers: **22,800**
Number of Schools: **6,170**
Budget for Education: **\$55,000,000**

* The University of Kentucky at Lexington and two large commercial libraries supply most of the rental sources, while there are three cooperative-owned film libraries run by school systems. The state also has at least eight city and county libraries of more than fifty films with the city of Louisville having the largest.

Louisville is outstanding in its public schools audio-visual program and the Louisville public library maintains an excellent film library for the civic clubs, parochial schools and other community organizations.

Audio-visual courses are provided at the University, Murry College in Murry, Morehead State College in Morehead, and Eastern State Teachers College in Richmond. The University is holding a clinic in audio-visual aids this year.

(OVER)

State Audio-Visual Reports:



State Population: **2,800,000**
 Number of Teachers: **17,700**
 Number of Schools: **2,952**
 Budget for Education: **not available**

• The State Superintendent of Education has charge of six film depositories which are budgeted annually at \$60,000. Five of these are maintained at state teachers colleges including the Negro college, while the sixth depository is run by the New Orleans audio-visual department.

All films are available to any educational institution without charge. The state department issues a film catalog annually which shows at which depositories the films are located. The purchase of these films is cared for by the materials of instruction budget.

Louisiana State University and one of the teacher colleges conduct a summer course in audio-visual aids.



State Population: **3,750,000**
 Number of Teachers: **29,100**
 Number of Schools: **4,378**
 Budget for Education: **\$3,750,000**

• The University of North Carolina's Bureau of Visual Education of the Extension Division serves the schools of the state. In addition, at least thirty-seven county and city school systems own libraries budgeted from \$750 to \$7,500.

Audio-visual courses are offered at the University's summer session and at the University's Women's College, and also at the Western Carolina Teachers College at Cullowee.

In 1949-50, the University of North Carolina distributes films on a unit booking basis giving the schools three plans to choose from: the first recommended for large school administrative units amounting to approximately 166 titles per year; the second recommended small school units with about eighty titles annually; and the third recommended for individual schools on a cooperative basis involving a minimum of three participating schools.

Note: Direct reports from 21 other states maintaining state audio-visual programs appeared in our January, 1950 issue.



State Population: **2,000,000**
 Number of Teachers: **17,500**
 Number of Schools: **3,928**
 Budget for Education: **\$45,000,000**

• The Film Library of the Bureau of Visual Aids, Extension Division, University of South Carolina, has grown from a small library in 1936 to one serving about 600 audio-visual users in South Carolina and other states.

Many of the small school systems in the state are starting their own film libraries, while the city schools of Columbia and the Cooper River School District already have their own film libraries and budgets.

Summer audio-visual courses are taught at the University of South Carolina and at Benedict College for Negroes. The Extension Division of the University conducts five or six such courses in outlying cities. These classes train an average of 1,100 teachers annually.

TENNESSEE

State Population: **3,200,000**
 Number of Teachers: **25,130**
 Number of Schools: **5,413**
 Budget for Education: **\$69,700,000**

• Tennessee's State Department of Education has for several years made available to the public schools educational films to stimulate interest in audio-visual materials throughout the state. The films are circulated through county and city superintendents of schools. By the end of 1948 the State Department had spent nearly \$25,000 to purchase more than 550 prints.

The University of Tennessee rental library at Knoxville has more than 1,500 films, with branch libraries at Knoxville, Nashville and Martin. The state has two large commercial rental libraries; also, the Tennessee Department of Conservation lends films to individual schools.

Five city school systems maintain their own film libraries, as do thirteen county systems, with budgets ranging from \$750 to \$15,000. Yearly state conferences of the Tennessee Education Association and the Eastern Tennessee Education Association include sessions on audio-visual programs.

Audio-visual teacher training may be received from the following institutions: University of Tennessee, Peabody College, Memphis State College, Middle Tennessee State College, Austin Peay State College, Tennessee Polytechnic Institute, Memphis State College, Bethel College, David Lipscomb College, and University of Chattanooga.



State Population: **1,925,000**
 Number of Teachers: **17,833**
 Number of Schools: **4,601**
 Budget for Education: **\$64,400,000**

• Financed on a cooperative basis, county film libraries serve many of the schools of West Virginia. The West Virginia University library at Morgantown rents films throughout the state, while the State Department of Health makes available films on health.

Cooperative film libraries are maintained by the Cabell County Board of Education at Huntington and the Wood County library at Parkersburg. Seven other counties maintain film libraries, the largest being the Kanawha County library though some of the others lack supervision or funds for expansion.

Audio-visual training courses may be had at the West Virginia University, Fairmont State College, Concord State College, Shepherd State College and West Virginia Wesleyan College. The number of teachers receiving this training has greatly increased in the last few years.

The Southwest



State Population: **670,000**
 Number of Teachers: **6,350**
 Number of Schools: **551**
 Budget for Education: **\$31,900,000**

• The schools of Arizona receive their audio-visual needs from five cooperative film libraries. Members of the cooperatives have access to their libraries' films which range from 50 to 500 prints. The libraries' annual budgets run from \$900 to \$2,500.

The first such cooperative developed in 1945 in Phoenix where three more schools now maintain their own individual libraries. In Tucson the University of Arizona has a rental library of about 800 films. Also the State Department of Public Health owns a film library for state-wide use.

Audio-visual training for teachers may be received from the University of Arizona, the State Teachers College at Flagstaff, and the State Teachers College at Tempe (this school requires such a course for graduation). In these colleges well over 500 teachers-to-be are trained in audio-visual instruction each year.



State Population: **580,000**
 Number of Teachers: **5,400**
 Number of Schools: **827**
 Budget for Education: **not available**
 • Last year a Department of Audio-Visual Aids was established under the Department of Education, and a state library of films is being set up. Distribution of materials will be through colleges and universities throughout the state and it is expected that within the next two or three years, the state program will be brought up to standard.

A \$450,000 bill was passed recently by the state legislature for teaching materials. Of this amount, \$40,000 will be used to start three beginning film and filmstrip libraries in state colleges and universities for their own use and for nearby schools in their part of the state.

These state institutions of higher learning have all begun film libraries of their own; some of them have begun to rent out film equipment as well as films. Audio-visual courses are available at the State University, the State College of A. and M.A., the Teachers' Colleges at Los Vegas and Silver City, and at Eastern New Mexico College at Portales.

The Midwest



State Population: **2,700,000**
 Number of Teachers: **23,000**
 Number of Schools: **8,113**
 Budget for Education: **\$101,000,000**
 • Excellent rental libraries are located at Iowa State College in Ames and at the University of Iowa at Iowa City. University of Iowa provides audio-visual courses for in-service and pre-service training covering various phases. The University has pioneered in university film production.

Other institutions offering courses are the Drake University at Des Moines, Iowa State College, and Iowa State Teachers College. Several hundred teachers annually receive formal audio-visual training, and several thousand teachers attend short workshops and conferences held at the various colleges and universities.

A large commercial library is located in Davenport, while there are four cooperative libraries throughout the state. Also there are at least thirteen libraries of more than fifty reels which are run by city or town school systems and by colleges.



State Population: **6,250,000**
 Number of Teachers: **42,000**
 Number of Schools: **8,894**
 Budget for Education: **\$240,000,000**
 • Rental film sources for the state now include the very large library at the University of Michigan, one at Michigan State College in East Lansing and four commercial libraries. A branch Audio-Visual Department of the University of Michigan is maintained on the Upper Peninsula.

There are two cooperative libraries in Michigan and at least thirteen local school system libraries, the largest being Detroit's. The State Department and State Audio-Visual Committee sponsors an Audio-Visual Conference and five regional conferences.

Audio-visual courses are conducted at the University, Wayne University and three state teachers colleges. Interest also is maintained by the Metropolitan Directors of Audio-Visual Instruction Association which holds monthly informal meetings.

An important and extensive state-wide plan is now being contemplated whereby the state will provide for the financial support of a distribution system as well as development of other needed phases. The proposal seeks as much as \$1,500,000 per year for audio-visual aids.



State Population: **3,950,000**
 Number of Teachers: **27,000**
 Number of Schools: **7,486**
 Budget for Education: **\$195,000,000**
 • This state has an exceptionally active and extensive audio-visual program. Film rental libraries are run by the University of Missouri at Columbia and four state colleges. Five of the larger public school systems own film libraries and have audio-visual aid budgets ranging from \$2,000 to \$50,000.

The St. Louis Division of Audio-Visual Education alone supplies audio-visual materials and guidance to 2,500 teachers of the system. The Visual Education Department of St. Louis County runs one of the oldest cooperative film libraries, which last year was appropriated 75¢ per pupil. This department serves twenty school systems and four rural schools.

With a \$15,000 Carnegie grant, the Missouri State Library is now conducting a dem-

onstration of film service through public libraries. The grant with participating libraries is reaching both the schools and community people of twenty-one counties and one city.

At least 600 teachers a year receive audio-visual training from the University of Missouri, five State Teachers Colleges, Southwest Baptist, Washington University, St. Louis University and Kansas City University. Stephens College and the University of Missouri conduct very extensive workshop programs.

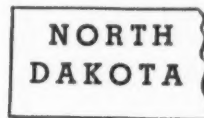


State Population: **1,300,000**
 Number of Teachers: **13,460**
 Number of Schools: **8,253**
 Budget for Education: **\$39,000,000**
 • In 1946 the Nebraska Program of Educational Enrichment Through the Use of Motion Pictures began its important work in studying the possibilities and teacher training aspects of audio-visual aids. Most of the major educational institutions have worked together, with the aid of a \$15,400 Carnegie grant and major educational film producers, to conduct a large scale project. Its results are to be published in 1950.

Film libraries exist at the University of Nebraska, the State Teachers Colleges at Wayne, Kearney, Peru, and Chadron, and the University of Omaha, two cooperative libraries for school systems and three public schools which have their own libraries.

The University of Nebraska offers complete training courses in audio-visual aids and conducts workshops, conferences and clinics. The University of Omaha will begin a similar program this year.

State estimates number public school sound projectors at 450, filmstrip projectors at 300, and 2" x 2" slide projectors at 350.



State Population: **560,000**
 Number of Teachers: **7,000**
 Number of Schools: **3,599**
 Budget for Education: **\$23,500,000**
 • Audio-visual interest in this state has increased particularly in the last two years. Individual school systems in small towns are acquiring filmstrip libraries of their own and some of the larger towns are purchasing sound films or renting films for programs.

Film libraries are maintained at the North Dakota State College in Fargo, the public school system in Fargo, the State Department of Health (health films), and the State Game and Fish Department (films on game life and related subjects).

A regular summer session workshop in audio-visual aids is held at the State Teachers College at Minot. (OVER)

State Audio-Visual Reports:

SOUTH DAKOTA

State Population: **625,000**
 Numbers of Teachers: **8,370**
 Number of Schools: **3,706**
 Budget for Education: **\$25,000,000**

• In this state, as in others with widely separated small school systems, the cooperative film library has helped solve the distribution problem.

Five cooperative film libraries function at regional points in the state; State College Cooperative Film Library at Brookings, Northern Normal Cooperative at the State Teachers College at Aberdeen, Southern Normal Cooperative at Springfield, West River Cooperative at Black Hills Teachers College in Spearfish and the Cooperative at the University of South Dakota in Vermillion. The University film library also has a rental library.

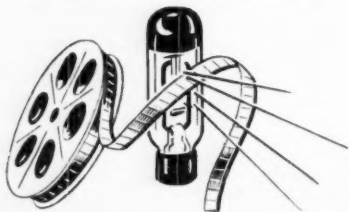
Mountain States

COLORADO

State Population: **1,200,000**
 Number of Teachers: **10,475**
 Number of Schools: **2,237**
 Budget for Education: **\$40,000,000**

• One of the first states to organize a State Division of Audio-Visual Instruction, which is part of the State Department of Education, Colorado spends a little over two per cent of the tax dollar for education which is comparatively high and which in part accounts for its outstanding audio-visual program.

The Bureau of Visual Education, Extension Division, University of Colorado, has offered generous services for many years. Other colleges and universities now active in visual education programs include Colorado Agricultural and Mechanical College at Fort Collins, Colorado State College at Greeley, Colorado College at Colorado Springs, Pueblo Junior College, and the University of Denver (the Colorado Cooperative Film Library).



NEVADA

State Population: **150,000**
 Number of Teachers: **1,240**
 Number of Schools: **239**
 Budget for Education: **\$6,630,000**

• The schools of Reno maintains its own library and other school systems have started their own also. Even in the sparsely settled areas of the state, 75 per cent of the schools use 16mm sound films and 15 per cent use other visual aids.

The University of Nevada offers two courses in audio-visual education during the summer session including a workshop. Also the State Department of Education each year sponsors a State Institute which includes audio-visual training. This Institute is held at Reno, Elko and Las Vegas.

There is extensive interest in audio-visual materials in Nevada and considerable planning of state-run programs is now under way.

UTAH

State Population: **675,000**
 Number of Teachers: **6,270**
 Number of Schools: **501**
 Budget for Education: **\$25,500,000**

• Utah spends more for education, comparatively speaking, than most other states, and being education-conscious, its interest in school use of audio-visual materials is ever increasing. Thirty per cent of the Utah schools use the 212 sound 16mm projectors and the 250 filmstrip projectors owned by the public schools.

The University of Utah at Salt Lake City, Brigham Young University at Provo and the Utah State Agricultural College at Logan have large rental libraries and carry on excellent training programs. In 1948, about 1500 teachers received audio-visual training in these institutions. The University of Utah offers graduate courses in evaluation and utilization of audio-visual materials.

WYOMING

State Population: **280,000**
 Number of Teachers: **2,770**

Number of Schools: **744**
 Budget for Education: **\$13,000,000**

• Though Wyoming, like several other sparsely settled states, does not have large school systems which are readily adaptable to film library maintenance, visual education is used in many phases of public school instruction.

The University of Wyoming possesses the largest film library in the state. A cooperative library, it has fourteen school districts as participating members. Many schools in the rural areas have filmstrip libraries and rent films for their audio-visual education.

Pacific Northwest

IDAHO

State Population: **550,000**
 Number of Teachers: **5,600**
 Number of Schools: **1,099**
 Budget for Education: **\$21,200,000**

• Two rental libraries supply audio-visual materials to each half of the state. They are located at Idaho State College at Pocatello and Boise Junior College at Boise. State College provides a course for prospective teachers.

Lewiston Normal School at Lewiston now offers a summer course in visual aids, while the University of Idaho at Moscow is awaiting state legislation prior to setting up an already-planned instructional materials program.

OREGON

State Population: **1,700,000**
 Number of Teachers: **12,119**
 Number of Schools: **1,569**
 Budget for Education: **\$64,000,000**

• Audio-visual materials in Oregon have more than tripled in the last few years. Oregon's Visual Instruction Director states that there are four times as many film projectors than there were a few years ago. The result is that most cities are well equipped in the elementary and secondary schools.

The Oregon State College has an instructional materials center which helps teachers in obtaining visual aids for classroom use. The College also maintains evening classes in Portland and Salem. Summer courses were offered this year at Oregon State College, University of Oregon, Eastern Oregon College of Education and the Southern Oregon College of Education.

Preparing Tomorrow's Teachers TO USE AUDIO-VISUAL TOOLS and TECHNIQUES

A See & Hear Mid-Century Symposium on Teacher Training

Materials Center and A-V Courses Provided at University of Chicago

by Alexander H. Howard, Jr.

Research Associate in Audio-Visual Education

★ *The Department of Education at The University of Chicago* maintains a "Center for the Study of Audio-Visual Instructional Materials." The basic purposes of the Center are to provide facilities for research on problems related to audio-visual instructional materials and the training of students in audio-visual methods of teaching. In addition, the Center provides audio-visual materials for the Department of Education and the Laboratory School and administers their use. It also collects and disseminates information about the audio-visual field.

Graduate students in Education work out audio-visual research problems as part of the requirements for M.A. and Ph.D. degrees. Usually, these problems are attacked within the framework of one of the special fields of the Department, such as Curriculum and Methods, Educational Psychology, or Adult Education. At the Master's level the study of a problem may take the form of an original thesis, or it may be a paper integrating other reports of research. At the Ph.D. level, the dissertation must make a significant contribution to knowledge in the field. Students are encouraged to undertake study of problems of production, selection, distribution, and utilization of audio-visual materials of all kinds.

TWO BASIC AUDIO-VISUAL COURSES OFFERED

During the Winter and Summer Quarters each year, two courses are offered: (1) Education 390 Audio-Visual Instruction: Techniques and Materials; and (2) Education 399J Audio-Visual Problems. The former is intended to provide a survey of the audio-visual field and to enable students to develop basic concepts and skills necessary for integrating audio-visual methods into their teaching. The latter course is offered for those students who wish to pursue study of particular specialized problems within the field. In addition, students have the opportunity to participate in

non-credit seminars where they can exchange ideas with persons doing research in other special fields in education.

ADEQUATELY EQUIPPED FOR RESEARCH AND SERVICE

The Center is equipped with basic apparatus and materials to meet the needs of research and training, and to service the instructional needs of the Department of Education and the Laboratory School. There is available special equipment for recording and analyzing learner reactions in situations involving the use of audio-visual materials. Students have access to projection rooms, darkrooms, art studios, and shop facilities. Available equipment includes 16mm motion-picture cameras and projectors, wire and disc recorders, radios and phonographs, PA systems, standard and 2 x 2 slide projectors, filmstrip and sound slide-film machines, opaque projectors, and film editing apparatus.

BOTH FILMS AND REFERENCE WORKS ON HAND

The Center also maintains a non-rental sound and silent film library of about 500 titles, including selected films related to teacher training. There are also sample collections of filmstrips, slides, recordings, models, charts, and other graphic materials. The Center maintains a small library of audio-visual text and reference books, periodicals, teachers' manuals, material on evaluations, and research reports to supplement those of the Graduate Education Library. Means are set up to obtain equipment and materials not on hand.

These activities are carried out based on the notion that the audio-visual field is an integral part of the larger context of education, and that the fields of educational philosophy, psychology of learning, curriculum and methods, and administration have important implications for audio-visual problems. ●

(CONTINUED ON THE FOLLOWING PAGE)

This Is the Heart of Our Problem

Tomorrow's teachers will teach as they are taught. Their understanding of the tools and techniques of audio-visual education must begin in our teacher training institutions. Here is what some of them are doing about it—our most important story of the year in many ways. This is Part One.

—The Editors



THIS STUDENT TEACHER selected her film with care—note the keen interest on the faces of her class.

Laboratory & Audio-Visual Studies Offered at the University of Iowa

by E. T. Peterson

The College of Education, University of Iowa

★ *Following World War II*, we decided we could no longer meet the demand for experience in audio-visual methods of teaching during the summer session courses in this field. Plans now include audio-visual courses each semester. An Iowa Audio-Visual Laboratory was built and equipped. All instruction in the audio-visual field revolves about this laboratory where the latest references and materials are available.

For study and reference, the laboratory includes all types of projection equipment; a complete library of audio-visual publications and other source materials; non-projected aids such as maps, charts, globes, and pictures; exhibits demonstrating a variety of stimulating school-made training aids; and different types of audio equipment including radio, recorders and playbacks.

BASIC COURSE FOR ALL PROSPECTIVE TEACHERS

The course, "Introduction to Audio-Visual Teaching Aids," is planned around the needs of teachers. This course is recommended to all prospective teachers when they are either taking their methods course or when they are doing practice teaching. Advanced courses are offered for those students interested in research or administration of an audio-visual program. Individual study of specific problems is undertaken by those enrolled in advanced courses.

In addition to the regular scheduled audio-visual courses, many methods classes make unlimited use of the Iowa Audio-Visual Laboratory. When methods instructors are teaching a specific subject related to the use of audio-visual materials they often meet for several days in the laboratory where they are assured access to a complete assortment of materials and equip-

ment. In addition, over 6,000 films, numerous slides, recordings, and filmstrips in the Bureau's library are available without charge for use by any instructor on the campus.

The College of Education and the Bureau of Audio-Visual Instruction, Extension Division, cooperate in providing staff members for conferences and workshop programs for in-service teachers. During the past year approximately 6,000 Iowa teachers received instruction in the selection, evaluation and utilization of audio-visual materials through a series of regional and county meetings.

EVERY FUTURE TEACHER MUST BE PREPARED

We think that every future teacher must be aware of means of communicating ideas with all the modern audio-visual devices. We cannot be satisfied with what we are doing today, but must also be looking forward to other developments such as television, to test its potential teaching values and to study other methods of improvement of instruction. ●

Seven Aims of Teacher Training Cited at University of Michigan

by Ford Lemler, Director

Michigan Audio-Visual Education Center

★ *Seven teacher competencies which serve* as objectives of the school's training program in audio-visual techniques are as follows:

1. A WORKING POINT OF VIEW: knowledge of how we learn, the role of sensory experience in learning, an appreciation for the values of audio-visual methods and a regard for them as purposeful tools, each with its own set of limitations and advantages.

2. FAMILIARITY WITH THE VARIOUS TYPES OF AUDIO-VISUAL MATERIALS: to know the major advantages and limitations of each type, and to be able to select from available tools those which best serve immediate teaching purposes.

3. ABILITY TO USE EACH AUDIO-VISUAL TYPE EFFECTIVELY: to select and evaluate audio-visual materials, to apply major principles of use.

4. FACILITY IN THE MECHANICS OF PROJECTION: to operate 16mm motion picture, filmstrip and opaque projection apparatus.

5. KNOWLEDGE OF THE SOURCES OF AUDIO-VISUAL MATERIALS, LOCAL AND NATIONAL.

6. FAMILIARITY WITH THE CONTENT OF SPECIFIC FILMS, FILMSTRIPS AND UNITS OF OTHER AUDIO-VISUAL MATERIALS WHICH HAVE UTILITY IN THE TEACHER'S FIELD.

7. ABILITY TO MAKE OR IMPROVISE SOME OF THE SIMPLER TYPES OF AUDIO-VISUAL MATERIALS: to arrange an effective exhibit, make hand-made slides, use a camera, write a film or radio script, build a picture file, how to use paper, wood, clay, and other media for creative experiences in the classroom.

The work planned for student teachers in the University of Michigan School of Education is guided by the following considerations. First of all, it is assumed

Teacher Training Symposium-I

that audio-visual materials and methods are not most effectively studied apart from their functional relationships to subject matter, teaching, and learning. We believe, therefore, in providing needed experiences with audio-visual methods, insofar as possible, as part of required courses which emphasize the psychology of learning, principles of teaching, observation and study of teaching methods, and directed teaching.

We prefer to try to develop the needed abilities through adequate coverage in prescribed courses rather than to legislate another separate course requirement for either graduation or certification. However, student teachers may elect the separate survey course, "Audio-Visual Methods in Teaching," as a further opportunity to develop competency in using audio-visual tools. There is no issue here between the separate course idea and the more general program. The skills and abilities to be developed are considered sufficiently extensive and important to merit repeated reference, study, and practice.

FUNCTIONS SIMILAR TO CITY A-V DEPARTMENT

The audio-visual laboratory is a unit maintained by the School of Education to perform many of the functions of the usual department of audio-visual education in a local school system. Among these functions are the procurement of audio-visual materials for staff and student teachers; assistance in selection including previews and committee evaluations; administration of projection; assistance to staff and student teachers in projection mechanics, laboratory skills, and classroom utilization. This unit is a service agency designed to implement through its audio-visual services the student's work in his professional education courses, especially his work in directed teaching. At the present time, a part-time coordinator is in charge of this unit.

The rich resources of the University of Michigan Audio-Visual Education Center with its staff of fourteen people, its audio-visual equipment which is used to supplement the apparatus in the School of Education, and its library of over 1,000 prints of educational motion pictures are made available to serve the School of Education in its teacher-training program.

TEACHERS DO TEACH AS THEY ARE TAUGHT

The potentialities of "training by example" are not overlooked. It may be a truism to say that teachers teach as they are taught—yet this principle is considered an important reason for actively promoting the effective use of audio-visual materials in university classrooms. The University Audio-Visual Education Center is serving many academic departments on the campus, an increasingly large number of which use films, filmstrips, and recordings each year.

Graduate work in audio-visual education, designed primarily for teachers in-service and for those people who expect to prepare themselves for administrative responsibilities in an audio-visual program, is offered by means of two courses, "Audio-Visual Methods in Education," and "Seminar in Audio-Visual Methods."

These courses give two hours of credit each in any sequence of study at the graduate level. It is hoped that an additional graduate course in the area of production can be offered in the future. ●

Minnesota Shows Audio-Visual Practicality in Six Courses

by Dr. Paul R. Wendt, Director

Minnesota Audio-Visual Education Service

★ Six formal courses in audio-visual education are offered in the College of Education at Minnesota.

—Most important elements of the beginning course are the psychological bases for the use of audio-visual materials taught via numerous classroom demonstrations—a laboratory course intended to be taken by all student teachers. The course entitled, "Coordinating a Visual Education Program," covers all the phases of administration of audio-visual programs at all levels. The two courses in Problems in Visual Education and Radio Education offer individual graduate study for colloquium papers.

The radio-audio-visual laboratory is housed near the classroom in the Audio-Visual Education Service. Students have access to the combined pool of the entire University of over \$100,000 worth of audio-visual equipment. Much of this equipment is located permanently in the laboratory. The laboratory also serves as an exhibit room for all types of non-projected materials. The exhibits are changed periodically by an administrative fellow.

MATERIALS AND EQUIPMENT AVAILABLE FOR USE

All student teachers have full access to all types of audio-visual materials and equipment in the University High School and Elementary School. These schools can draw on the staff, materials, and equipment of the Audio-Visual Education Service. *Units on audio-visual methods are given in all the methods courses.*

Concentration in audio-visual education is possible for both the M.A. and Ph.D. degrees. Several significant Ph.D. theses since the war have been on audio-visual methods.

Two administrative fellowships in audio-visual education are available each school year in the Audio-Visual Education Service; these are equivalent to internships for advanced students in the field. They give practical experience in all phases of the operation of the Audio-Visual Education Service in providing over 12,000 showings a year to University classes and in servicing schools of the state. The course in Effective College Teaching in the Department of Higher Education of the College contains units on audio-visual methods at the college level.

REGULAR WEEKLY SCREENINGS ARE SCHEDULED

Students in education attend a series of regular weekly film showings called Monday Movies, Newsreel Theater, and Films for Teachers. The University Film Society brings a series of foreign films to the campus each quarter. Students have access to the

(CONTINUED ON THE FOLLOWING PAGE)

Museum of Natural History on the campus and the coordinators association for the inter-change of professional information.

Local audio-visual institutes are held throughout the state and an annual institute is held at the Center for Continuation Study. Members of the staff of the Audio-Visual Education Service, such as the director, assistant director, film librarian, and audio-visual engineer, are always available to consult with education students, in-service teachers, and administrators on materials, equipment, and facilities. The production division of the Audio-Visual Education Service frequently offers education students an opportunity to take part in production activities, and it stands ready to help in-service teachers with the planning of production or sound recording of school-made films. •

Cornell Expands Audio-Visual Services to Students and Faculty

by J. James Jehring

Assistant Professor of Industrial & Labor Relations

★ *Audio-visual instruction at Cornell University* is centered in the New York State School of Industrial and Labor Relations. An extensive audio-visual laboratory has been assembled in this school and it includes: sound slide projectors, sound motion picture projectors, slide projectors, transcription players, visual casts, opaque projectors, radios, public address systems, cameras, and wire recorders. An extensive audio-visual library, consisting of films and recordings in the field of industrial and labor relations, has also been established for use in the school.

A course in audio-visual communication on both the graduate and the undergraduate level is offered with opportunities for graduate students to work on special projects in the audio-visual field. They are encouraged to inject their own ideas into the course. The course, itself, touches on both the production and the use of audio-visual materials and is designed to give the student a better understanding of the problems involved.



AUDIO-VISUAL COMMUNICATIONS class members at work in the Audio-Visual Lab at Cornell University.

The school had a number of foreign students working in audio-visual communication during the past two years. They came from India, China and European countries.

Extensive use of all types of audio-visual materials is being made by professors on the campus as well as by the instructors in the extension program.

Cornell University also has several departments which devote most of their time to the production of audio-visual materials. The New York State College of Agriculture has a complete production laboratory for all types of audio-visual material which are used to produce colored slides and sound motion pictures widely used in the field of agriculture. The Photographic Science Service produces, on campus, everything from cartoons to complete sound motion pictures.

Activity in the audio-visual field at Cornell will continue to increase as there is a growing demand, on the part of all persons interested in all levels of education at the University, for more information about this modern technique of communication. •

Strand Development Plan Extends Visual Instruction at Syracuse

by Luella Snyder

of the Audio-Visual Center, Syracuse University

★ *All education students at Syracuse University receive instruction in audio-visual materials and methods.*

—Under the "strand development" plan, this instruction is not restricted to a few specialized courses alone, although specialized courses are offered. Instead, audio-visual instruction is at present followed through in a continuous "strand" in five of the teacher-training courses. Other courses will be included later. The audio-visual director and the various instructors plan together in deciding where, in each course, audio-visual materials can best be introduced.

An example of the strand development idea is Secondary Education 105 which is required in the core curriculum for education majors. It is taken in the senior year before a student goes out into a community school to do his extra-mural teaching. Its purpose is to prepare the student for his role in the classroom and in the community.

THREE ELEMENTS OF COURSE ARE DESCRIBED

This course is divided into three parts—lecture, seminar, and audio-visual laboratory.

Lectures, given by the professor in charge of the course, include a unit on the values of audio-visual materials, and why they should be used in education.

Seminar groups are made up of students having the same major field of interest. Seminars are conducted by dual professors, holding joint appointments from the School of Education and some other college or department in the university. Audio-visual techniques as applied to teaching in various subject matter areas are discussed, and the materials available in the area are previewed.

In the audio-visual laboratory, each student receives ten class hours of intensive instruction in audio-



THESE SYRACUSE UNIVERSITY student teachers are receiving individual instruction in the operation of audio-visual equipment -- an integral part of their preparation for classroom use of these tools after graduation. A thorough grounding in a-v fundamentals is offered at Syracuse University.

visual materials. The laboratory is conducted by a graduate assistant appointed by the School of Education and supervised by the audio-visual director.

Five hours are devoted to utilization, including selection of material, why and how they should be used, what is available in various fields, and where materials can be obtained.

Five hours are devoted to the operation of equipment. Students learn to set up and operate various makes of movies, filmstrips, slides, overheads, and opaque projectors. These laboratory sections run from 20 to 25 students. Small groups work together at each piece of equipment.

In dealing with non-projected materials, emphasis is placed on low-cost items, and those which the student can make himself. Maps and charts, posters, specimens, and models are brought into the classroom for discussion.

AUDIO-VISUAL MAJOR OFFERED IN GRADUATE SCHOOL

Utilization is taught by a staff member of the Audio-Visual Services who is also on the faculty of the School of Education. Utilization techniques for various materials are discussed, and the materials themselves are used as an integral part of instruction.

For graduate students, Syracuse University offers a major in audio-visual materials for the master's degree, and a minor for the doctor's degree. Graduate courses in utilization, production, and administration are taught at times when teachers from the central New York area are able to attend.

INCLUDES BASIC COURSES IN RADIO AND EXHIBITS

Courses in educational use of radio, writing and producing programs are offered by the Radio Center which operates the first university FM radio station to be issued a license by the FCC. Radio students take part in planning, writing and producing educational and public service programs.

Museum management courses enable teachers to learn effective display and diorama and model con-

struction. Practice in planning and setting up exhibits gives experience in an area of audio-visual materials which is too often neglected.

Off-campus courses and workshops at the graduate level are also offered. Some are conducted in Syracuse University's extension centers; others are given upon request from a number of teachers at a location convenient to them.

WIDE RANGE OF CAMPUS AUDIO-VISUAL SERVICE

On the campus, the Campus Service program assists the colleges in the university to select suitable materials for class use. It handles the booking of materials obtained off-campus, and furnishes equipment and operators for showings. Resources of the film library are also available to campus and off-campus users.

The Audio-Visual Services and School of Education will help campus departments to select graduate assistants who are qualified to select materials, instruct faculty in audio-visual teaching methods, and operate equipment.

Audio-visual facilities at Syracuse University are being expanded. Additional space, equipment, and staff will make it possible to increase the number and scope of the courses offered, and to give students an opportunity to participate in activities, such as educational photography, which formerly were not available.

Like the other teacher-training institutions in the state, Syracuse University believes that a knowledge of audio-visual materials and techniques is important to teachers. Audio-visual instruction through the use of audio-visual materials is a part of its effort to help improve teaching in New York schools. ●

North Carolina Prepares Teachers With a Diversified A-V Program

by Kenneth M. McIntyre

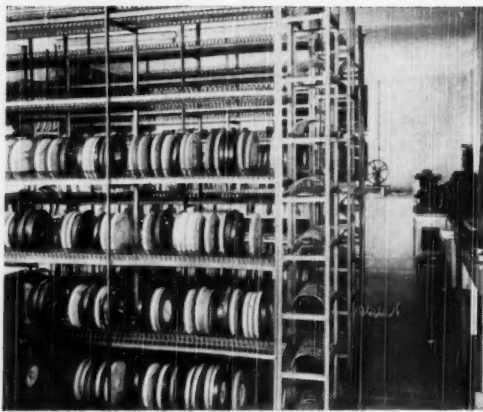
Communication Center, University of North Carolina

★ A course in the techniques and materials of audio-visual education is offered by the School of Education at the University of North Carolina during all four quarters in order to supplement the general education courses.

Students are given graduate or certification credit for the course. The four main objectives of the course are:

1. A study of the general principles, problems and practices involved in the selection and utilization of audio-visual materials.
2. An analysis and evaluation of the various kinds of audio-visual instructional material.
3. An examination of the contribution to instruction and the results of research bearing on the use of these aids.
4. Laboratory training in the operation and use of projected aids, radio and other auditory aids.

Special technicians and a film library containing (CONTINUED ON THE FOLLOWING PAGE)



THE GROWING FILM LIBRARY in the Communication Center at the University of North Carolina.

(CONTINUED FROM THE PRECEDING PAGE) 1700 reels of 16mm sound films complete the facilities for teaching all material aspects and methods of utilization of audio-visual instruction. A field service, designed to assist with in-service teacher-training programs and surveys under the direction of the School of Education, provides professional aid and consultation for public school personnel in the state.

The Communication Center is an important part of the audio-visual program at the University of North Carolina. The Center was organized in 1945 and has five divisions of service: radio, research, graphic arts, utilization and distribution, photography, and motion pictures.

The Center was organized with a three-fold purpose in mind:

1. To conduct research to determine the relative effectiveness for education of all communication media.
2. To train students and teachers in its laboratories in the professional and educational use of these modern methods.
3. To produce materials and programs in the broad fields of conservation and development of natural, industrial, and human resources.

Academic courses at the University which are supplemented by this program include: radio, production of slide films, motion picture production, photography, graphic design, and communication research. •

Ohio's Teaching Aids Laboratory a Center for Student Teachers

by Norman Woelfel, Director

Teaching Aids Laboratory, Ohio State University

★ *The Teaching Aids Laboratory at Ohio State University* operates as a University-wide service agency for departments, instructors and student teachers. Its function is to assist in solving the instructional problems referred to it. The problems range from special problems in building-planning to scheduling a uni-

versity class for a film showing. In between consultations and routine scheduling, the staff prepares short informative bulletins dealing with all types of teaching and instructional aids for general distribution. The staff frequently arranges special demonstrations of teaching equipment and teaching resources for classes in the College of Education.

TEACHING-AIDS MATERIALS FOR REFERENCE

A collection of teaching-aids materials, such as films, filmstrips, posters, charts and flat pictures, is maintained. In this service a student teacher, for example, in search of resources for a unit of study concerning China would find the following resources from which to select: listings of pertinent films, filmstrips and recordings which are immediately available. Among the map collection are picture maps of the country, relief and political maps of Asia. In the way of wall-size charts and posters, there are both those which deal exclusively with facts about China and those which show China in relation to other countries and the rest of the world. Among the group of flat pictures about China are commercially sold sets, sets made by the Teaching Aids Laboratory from illustrated books, and individual mounts both in color and black and white. There are also clippings, illustrated articles, leaflets, and special portfolios available.

Other teacher helps include: annotated listings of sources of pertinent materials, copies of bibliographies on the subject for both teacher and pupils, accounts of units dealing with the topic as worked out on various grade levels. Additions to those materials are being made constantly.

RECORDING STUDIO WELL EQUIPPED FOR NEEDS

The University recording studio is equipped to do all types of recording for classroom or research purposes. During the past year, the studio has originated broadcasts, transcribed programs from the radio networks for delayed broadcast, and scheduled program rehearsals for the University radio station. It has recorded vocal and instrumental music by the University band, orchestra, glee club, and chorus for the School of Music, sound effects and musical themes for motion picture sound tracks for the department of photography.

The studio has also undertaken special recording assignments, involving remote pick-ups, for the Department of Psychology, the College of Law, and the College of Medicine. Extensive class recordings were made at the beginning and end of each quarter for the department of speech and the department of Romance languages. Numerous conferences, discussion groups, and workshops for the College of Education have also been recorded. The addition of special equipment, during the past year, has enabled the studio to do remote recording direct from laboratories and special rooms anywhere on the campus.

The University chart and graph service has extended the range and type of instruction materials prepared on a made-to-order basis for University departments. Great strides toward making instructional charts attractive, appealing and effective have been made. When data to be illustrated does not lend itself readily to pictorial techniques, the airbrush has been used as a "dressing-up" medium. Thus soft grada-

(TO BE COMPLETED IN THE NEXT ISSUE)

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PRODUCT PARADE

New Film Catalogs Available:

◆ More than 300 educational motion pictures produced by Coronet Films are listed in new film catalog just released. The 64-page book is free to all regular film users. Write Coronet for a copy.

◆ Write for your copy of the 1950 Young America catalogs. There are separate books available: The YAF Catalog of Teaching Films lists more than 100 16mm sound films; the YAF Catalog of Filmstrips and 2 x 2 Slides describes more than 100 filmstrips available. Both are free from the producer's New York office.

◆ Top-rate vocational films are also listed in the new catalogs of Castle Films division of United World Films, Inc. (all USOE subjects, for example); the Jam Handy Organization, Detroit 11, Michigan; the Society for Visual Education, 1345 Diversey Parkway, Chicago; and Vocational Guidance Films, Des Moines, Iowa.

◆ There's a 1950 Encyclopaedia Britannica Films Catalog waiting for your request letter to headquarters at Wilmette, Illinois.

◆ Finally, there's the new Ideal Pictures Corporation functional order catalog which you can get from 65 E. South Water St., Chicago 1.

News of the Services & Equipment:

◆ Peerless Film Processing stations are now located throughout the country. A complete list is available from Kern Moyse, president, at 165 West 46th Street, New York 19. Wilding Picture Productions, Inc. in Chicago is the latest Peerless Film Treatment installation.

◆ The Brumberger Company, supplier of visual aids materials such as slide viewers and all-steel slide binders, invite your request for their free catalog. Write to Brumberger at 24 Thirty-Fourth Street, Brooklyn 32, N. Y., for a copy.

Brumberger facilities will be described in the following issue of SEE & HEAR as a typical example of modern production for audio-visual service.

◆ Gilbert Heck is the new sales manager of the DaLite Screen Company, Chicago. He is a veteran of 22 years' service in the DaLite organization and well known throughout the audio-visual field.

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THE NEW FILMS

★ The Spring of 1950 will apparently rate as one of the most active periods in modern classroom film production history. Here are some of the most recent new releases:

"Are You Ready For Marriage?" on List of Coronet April Releases

◆ *Are You Ready For Marriage?* This new 16mm classroom film brings advice and counsel that should form an important part of the social education of every young man and woman. A variety of vital teaching points are made on a "Checklist For Cupid." Important facts about engagement and marriage are outlined by a marriage counselor in a dramatic screen presentation.

Other new titles by Coronet are: *Good Sportsmanship* which emphasizes fair play in sports. *Spotty: Story of a Fawn* shows the adventures of a wild fawn in a believable and fascinating manner. *Life in a Pond* portrays scenes of plant and animal life that provide examples of important principles of natural science. *The Medieval World* gives real meaning to knights and feudalism, castles and crusades and Chaucer's Pilgrims. *Fun That Builds Good Health* teaches children how to play in groups or alone by presenting a variety of games.

EB Films Releasing Three New Classroom Films on The Arts

◆ Encyclopaedia Britannica Films is releasing three educational sound films on the arts.

The new films are: *Painting An Abstraction*, a one-reel, 16mm color film, third in a series. It deals with the techniques of water color painting and was produced with Eliot O'Hara, N. A. as the collaborator. In this film the noted art teacher demonstrates the creation of an abstraction with balanced form and movement. *Painting With Sand*, one reel, full color. Reveals an art form of the Navajo Indians and how it is

used by the medicine men to restore a sick child to health.

Clay In Action, one reel, black and white is the third film. It shows the progressive steps of modelling a portrait in clay by the artist, Arturo B. Fallico. He completes his interpretation of the model's personality before the eye of the camera.

Young America Announces Two New Sound Films and New Filmstrip Sets

◆ Young America Films, Inc., announces the release of new 16mm sound films which will bring its total of catalogued teaching films beyond 100. The new titles are: *Glen Wakes Up* which depicts the importance of being a good citizen. Built around a young boy who feels everyone is

against him and how he awakens to his responsibilities. *Home Management: Buying Food* a continuation of this firm's Home Management series. Film explains importance of family budget for families of different sizes and income groups.

Young America's newest filmstrips are: *The Samson Series*—three filmstrips for schools and religious groups, built around the life and times of the great biblical hero. *Products and Industries, Set No. 2*—Continuation of a series. Sample titles from this set are: *How We Get Our Coffee, How We Get Our Glass*, etc. *Children of Early America, Set No. 3*—Sample titles from this set are: *Plymouth Girl, Oregon Trail, San Jacinto Corn*.

Book Review: The Recording and Reproduction of Sound

THE RECORDING & REPRODUCTION OF SOUND—by Oliver Read. 364 pages. (\$5.00) Published by Richard W. Sams Co., 955 N. Rural St., Indianapolis 1, Indiana. (Orders accepted via Audio-Visual Bookshelf, 812 N. Dearborn, Chicago 10.)

★ The book is undoubtedly directed toward the professional audiences of those day in and day out concerned with high fidelity sound recording, and reproduction. While not directly aimed at the classroom teacher or supervisor of audio-visual instruction, it summarizes beautifully the exhaustive search which is being constantly made to accomplish the illusion of live presence in recorded sound via several systems; tape, wire, transcription, etc. The whole story of the progress of recording and reproduction of sound is treated and then the book proceeds into a specific and highly authentic contemplation of various means by which sound may be recorded and reproduced.

From the standpoint of the teacher, the book is extremely valuable in that it accomplishes three things which are constantly before the consideration of educational groups.

1. In the book is included a very comprehensive comparison of wire versus tape forms of recording. Physical characteristics; sound, quality, and allied considerations are dealt with in such manner as will answer many of the questions confronting school people questioning the kind of sound reproduction system to purchase for school use.

2. Consideration is given loud speaker placement which in the writer's opinion has resulted in one of the most grossly neglected areas of audio-visual mechanical situations in our schools. The book points out the superficial consideration which is being given to correct loud speaker and microphone placement in school use of sound reproduction equipment. The brief consideration given to this problem of microphone placement is well worth the price of the book.

3. The problem of the improvement of sound reproduction through care and proper examination of tone arms, stylus feeding, etc. is again a consideration which is too often neglected by the classroom user of transcription and recording, playback equipment.

In general, while the book "Recording and Reproduction of Sound" is written from the highly technical standpoint, the three considerations named above make this book a worthwhile one to be added to the library of the person interested in the improvement of instruction via sound recording and reproduction equipment.

(Reviewed by W. A. Wittich)

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